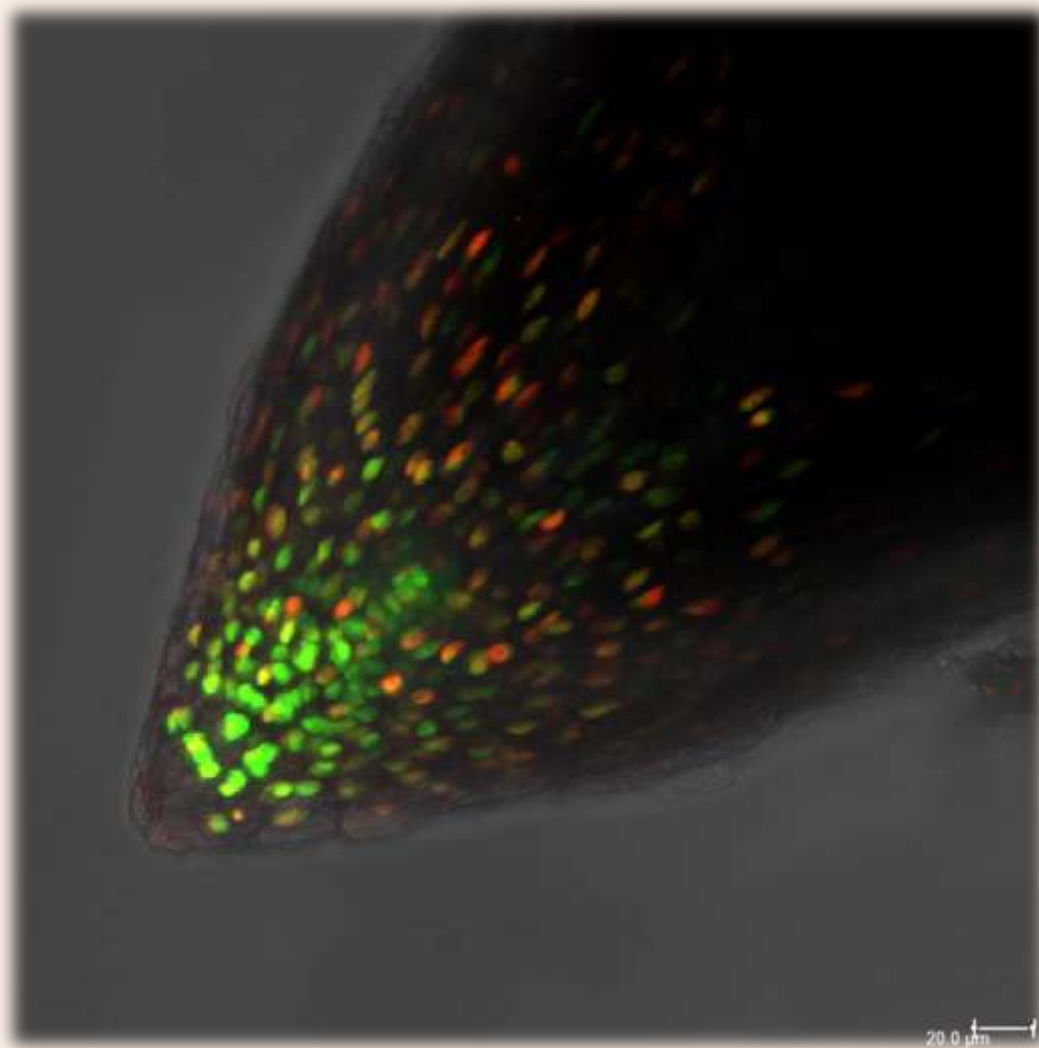




ANNUAL REPORT 2019-20



Auxin-Cytokinin interplay in the lateral root tip of *Arachis hypogaea*. Green represents auxin, red represents cytokinin and yellow represents overlapping hormone response.



Vision

To generate new knowledge in the area of plant genomics, assimilate it with current knowledge and translate the same for genetic enhancement of plants for social benefits

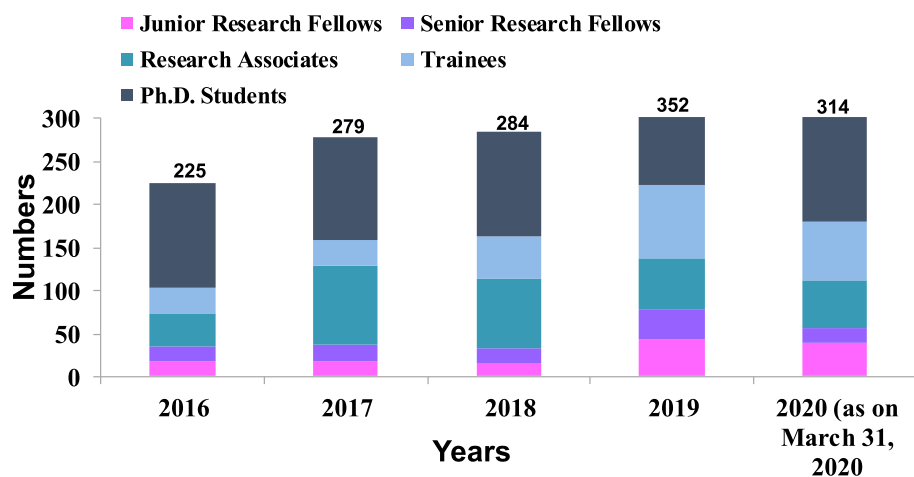
Mission

To undertake, aid, promote guide and coordinate research of high calibre in basic and applied plant molecular biology

Research Areas

1. Genome analysis and molecular breeding
2. Development and signalling
3. Plant responses to abiotic stresses
4. Plant-microbe/insect interactions
5. Computational and structural biology
6. Nutritional traits in crops

Human Resource Development



Achievements

Ph.D. awarded:	[129 (13*)]	Publications:	[992 (103*)]
Patents and products:	[58 (4*)]	Lectures delivered:	[1001 (140*)]
Lectures organized:	[160 (16*)]	Conference and workshops:	[86 (14*)]
Students visit:	[78 (13*)]	Awards and recognitions:	[195 (54*)]

[*2019-2020 (as on March, 2020)]

National Institute of Plant Genome Research, New Delhi



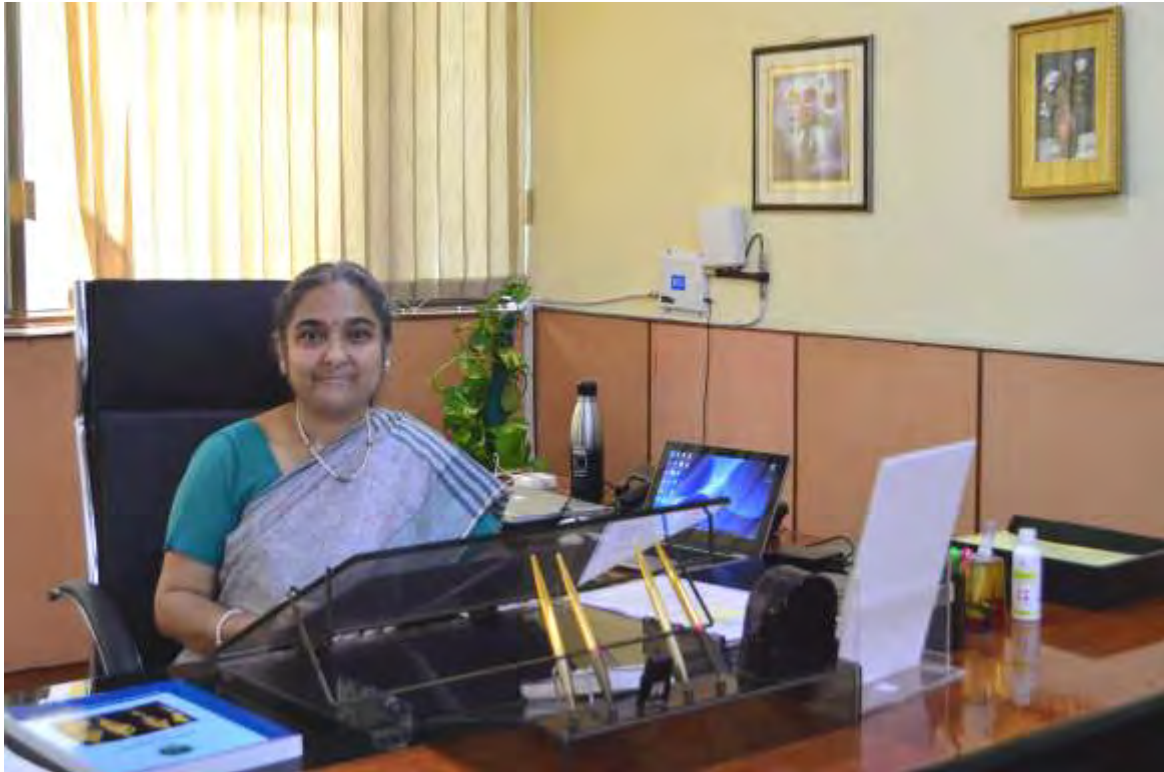
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Mandate

- Undertaking high caliber scientific research in advanced areas of fundamental and applied plant molecular biology;
- Providing effective linkages between various scientific and research agencies in the country on plant genes and related areas;
- Utilizing molecular biology approaches along with tissue culture and genetic engineering technology to identify important genes and manipulate them for generating transgenic plants with improved agronomic characters and pathogen/stress resistance;
- Undertaking fundamental research work related to gene-regulation and mapping;
- Utilizing molecular breeding for genetic improvement of crops for important traits;
- Understanding molecular basis of plant-microbe interactions;
- Imparting advance training in the field of plant genetic engineering and genome analysis;
- Undertaking collaborative programmes with various Universities/Institutes that are engaged in plant genome research.

Preamble



It is my pleasure to present the annual report for the year April 2019-March 2020. Starting from the inception in 1998, National Institute of Plant Genome Research (NIPGR) research is focused both in basic science and translational work with a mission to undertake research of high calibre in plant molecular biology and to seek applications of the same. Today NIPGR's vision is to be recognized as a centre of excellence not only in the Asia-Pacific region, but also among top plant science institute in the world. To fulfil the vision, the mission is to continue to call for research and innovation to have transformative impact on society. The Institute is actively engaged in research on topics ranging from genome analysis and molecular breeding, plant development and architecture, adaptation to abiotic stresses, molecular mechanisms of host-pathogen interactions, plant immunity, computational & structural biology, nutritional genomics and emerging areas covering cutting-edge research. I would like to highlight below some of the recent achievements of the Institute.

A comparative transcriptome analysis of two chickpea genotypes contrasting for seed Fe content under iron-deficient conditions and literature survey identified few important Fe-responsive genes. Of these the promising candidates Car_FRD3, Car_YSL4, and Car_VIT7 are currently being analyzed to understand molecular mechanism of iron transport and storage. In another study, an integrated genomics-assisted breeding and functional genomics strategy identified a bHLH

transcription factor encoding gene, *CabHLH10* underlying a major quantitative trait locus (QTL), along with its derived natural alleles and haplotypes governing seed yield under drought stress. Mediator complex is one of the most crucial component that regulates gene expression, but almost nothing is known about the structure of plant mediator complex. In a recent Nucleic Acid Research paper it has been reported that AtMED14 makes the backbone of the whole complex, while AtMED17 holds the head module. SNP-based clustering of Mediator subunits associated with specific agronomic traits, identified MED15 to be associated with seed size trait.

Grain size and weight are major determinants of grain quality and yield, and so have been under selection since domestication in rice. Resequencing of long grain and short grain rice accessions identified a large genomic region of around 6 Mb spanning the centromere of chromosome 5 with very few nucleotide polymorphisms (SNPs and InDels), termed as Low Polymorphic Region (LDR). Further, genome wide polymorphism analysis and scanning of SNP dataset of 3000 rice accessions from IRRI showed that the LDR was very prominent in *indica* and *japonica* varieties but not in *aus* varieties. In general, the *indica* and *japonica* are preferred varieties for domestication across the world especially in Asian countries. The *aus* varieties are popular in Bangladesh and eastern states of India and are closure to the wild varieties. Indeed, an in-depth analysis of this LDR revealed its importance in domestication of rice published in the Plant Journal. In this particular study, two novel QTLs for grain size/weight trait, including one in the LDR, were identified. These QTLs could be used for further improving the rice varieties. All the polymorphic data and analytical results can be accessed in RiceSzWtBase database available on NIPGR website. Also, a mini-core of about 528 rice accessions that represent the genetic and phenotypic (18 different traits) variations has been developed, which is a very useful resource for association studies in rice.

The colour of seed coat is considered as one of the important agronomic traits for chickpea. Many previous studies reported that difference in the flower and seed coat colour is due to the accumulation of secondary metabolites mainly anthocyanin/ proanthocyanidin and lignin that are derived from flavonoid/anthocyanin branch of the phenylpropanoid pathway. In a recent study, NIPGR has demonstrated that flower and seed colours of chickpea are linked and can be modulated by manipulation of a single biosynthetic pathway. Though RNA interference (RNAi) gene-silencing of two candidate genes *CaMATE1* and *CabHLH* involved in anthocyanin biosynthesis, variation of flower and seed colour had been attained. The study suggested that the flower and seed colour of chickpea are linked and can be regulated by single genes and manipulating single biosynthetic pathway.

Aspartic proteases (APs) gene family is a subfamily of proteolytic enzyme widely distributed in plants, animal, bacteria, fungi, and virus. NIPGR has investigated the role of OsAPN and its Arabidopsis homologs ASPG1 in regulating root architecture and drought stress response in rice and *A. thaliana*. The analysis revealed the conserved role of OsAPN and ASPG1 in promoting root growth and branching in both these plants. Also, the overexpression of these genes found to exhibit drought tolerance in rice/Arabidopsis. Overall, this study suggests that cultivar specific overexpression of APN (though genome editing/natural allele) may be used as strategy for improve root architecture and impart stress tolerance in desired rice cultivars. Furthermore, a dehydration-responsive integral PM protein, CaNCX was identified and characterized from a global organeller proteomics study. Downregulation and overexpression analyses suggest that CaNCX functions as

a molecular link between Ca^{2+} and Na^{+} uptake into plant cells and play regulatory roles in stress adaptation.

Under P deficiency, plants replace membrane phospholipids with non-P lipids like galactolipids for reducing P requirement. Vital galactolipids biosynthesis genes induced in Pi deficiency have been identified. Overexpression and CRISPR/Cas9 mediated knockout lines for MGDG and DGDG biosynthesis were raised in rice. *OsMGD3* overexpressing lines displayed an improved P-use-efficiency while knock out lines showed a poor P-use-efficiency compared to WT thereby displaying the significant role of lipid remodeling towards Pi deficiency adaptation.

PROTEIN L-ISOASPARTYL METHYLTRANSFERASE (PIMT)-mediated protein repair system is critical in maintaining reactive oxygen species (ROS) homeostasis during stress by protecting antioxidant enzyme functions, and thereby maintains plant growth, yield and survivability and under stress conditions. In another recent study published in Journal of Biological Chemistry, it was observed that PIMT1 and PIMT2 improves stress tolerance by facilitating efficient ROS scavenging by protecting the functionality of antioxidant enzymes from isoAsp-mediated damage during stress.

Heat stress is a major impediment for crop yield. Three novel heat stress-tolerance genes that improve thermotolerance in tomato were identified. The transcriptome-wide comparative landscape of the selected tolerant-sensitive cultivar-pair has delineated several common and cultivar-specific regulatory networks and candidate genes to enhance thermotolerance in tomato. An acyltransferase gene and Notabilis gene, conferred tolerance upon overexpression. Down regulation of Pin-II proteinase inhibitor, a negative regulator, has resulted in improved tolerance. This information will aid in understanding the mechanism of heat stress response in tomato and could lead to more thermotolerant lines. This study was recently published in Plant Biotechnology Journal.

Attempts had been made to understand the plant defense against pathogen attack. Chitosan, the oligosaccharide elicitor, is a key signaling molecule and positive modulator of plant defense. It has been shown to form physical barriers around penetration sites and inhibits the hyphal growth. A recent study in the Plant Journal from NIPGR has elucidated the mechanism of chitosan-triggered immunity (CTI) in chickpea during vascular wilt disease caused by the devastating fungal pathogen *Fusarium oxysporum*. The data illustrated that chitosan regulates extracellular matrix (ECM) dynamics, stomatal function and root architecture to restrict pathogen entry and thus is a major determinant during *F. oxysporum*-induced resistance to vascular wilt.

In yet another study, the role of *Xanthomonas oryzae* pv. *oryzae* (a causal agent of series bacterial leaf blight disease in rice) effector proteins (XopQ, XopX and XopZ) that are secreted through type III secretion system (T3SS) in suppression of plant innate immunity had been analyzed. These effector proteins were found to interact with five distinct Gf (14-3-3) proteins of rice and this interaction is necessary for the ability of these proteins to suppress rice immune responses. Initial results suggest that four of these Gfs are positive regulators of innate immunity, while the fifth Gf is a negative regulator of innate immunity. Overall, this study suggests a complex interplay of *Xanthomonas* T3SS effectors in the suppression of both PTI and ETI to promote virulence on rice.

Sheath blight is an important disease of rice caused by a necrotrophic pathogen, *Rhizoctonia solani*. A master transcriptional regulator of defense genes *RAV1* in model plant *Arabidopsis thaliana* was identified. The overexpression lines exhibited enhanced expression of several defense genes, including MAPK while the mutant lines showed susceptibility. Interestingly, its ortholog in tomato provides broad-spectrum disease resistance against bacterial (*Ralstonia solanacearum*), fungal (*R. solani*) and viral (Tomato leaf curl virus) infections. Another study illustrated *Trichoderma* mediated enhanced growth and local and systemic acquired resistance in Low nitrate fed *Arabidopsis* plants by increasing N uptake and enhanced protein levels via modulation of nitrate transporter genes.

Aschochyta blight (AB) is a serious disease of chickpea. A novel genomic region that confers tolerance against AB has been discovered, and a genetic marker has been developed for this genomic region and is being used in breeding for fungal resistance in chickpea. Chickpea transcription factors were identified as targets of *Ascochyta rabiei* effectors. The work has been carried out in collaboration with IARI, New Delhi. Further, using artificial neural network (ANN)-based simulation model, the disease occurrence pattern for dry root rot (caused by *Rhizoctonia bataticola*) in chickpea plants grown in the field was predicted. ANN-based model will allow the location-specific prediction of DRR incidence, enabling efficient decision-making in chickpea cultivation to minimize yield loss. This research also provided evidences that drought stress predisposes the chickpea plants to the dry root rot disease, an important finding that is being used to disseminate the message to field scientists for the awareness of the farmers.

A fast, efficient and convenient tsRNA-Toolkit, PtRNAdb database were developed to identify tsRNAs using small RNA-seq datasets in a wide spectrum of organisms. This will aid in the investigation of non-canonical functions of tRNA and the implications of tsRNAs in pathways. NIPGR has identified START proteins in ten *Oryza* genomes and classified them into various structural classes based on additional START-domain associated functional domains.

N-glycan processing enzyme α -Man was silenced using RNA interference (RNAi) to control fruit softening during ripening. Silencing of α -Man in transgenic tomato plants resulted in enhanced fruit shelf life, due to the reduced rate of fruit softening. In another study, three anthocyanin specific regulatory proteins and their interacting partners MYC and TTG1 proteins were identified from *Musa acuminata* for the formation of MBW complex. It was shown that neither MYB nor MYC alone can transactivate anthocyanin biosynthesis in banana, however, combination of MYB nor MYC along with TTG1 can successfully trans activate the promoters.

Apart from high quality research, publications and manpower training, the Institute is also striving hard to translate its findings. Using a rapid, integrated, genomics-assisted breeding and functional genomics strategy involving GWAS, QTL/fine mapping, map-based cloning and molecular haplotyping delineated many superior alleles for crop improvement program. The detailed study using two such superior alleles not only have been published in Plant Physiology and Plant Journal, but have been translated towards product development. Field trials of a high yielding desi chickpea variety (Improved JG-11) developed by NIPGR in a collaboration with IARI and ICRISAT is ongoing. Through marker-assisted selection large seed characteristic has been transferred into a commercially important desi chickpea variety, JG11 (ICCV 93954). The Improved JG1 variety has a

15-20% increase in yield over the parent. This line has been evaluated in multi-locational field trials conducted under “ICAR-AICRP (All India Coordinated Research Projects) on Chickpea Advanced Varietal trial-1 (AVT-1)”. In the AVT-1 trial that was conducted during rabi-2018-19, the variety was found to have done well and has been promoted for testing under Advanced Varietal Trial-2 (AVT-2) which is being conducted during rabi-2019-20 at 16 different rainfed areas of India. If the performance of Improved JG-1 is also satisfactory in AVT-2, it can be considered for release as a variety for commercial cultivation.

In addition, the institute has also developed an extra-large seeded kabuli variety. The molecular marker for large seeded character has also been used in marker assisted selection to make an extra-large seeded derivative of the commercially important kabuli variety, KAK2. Extra-large seeded kabuli types find favour in the export market. The 100 seed weight of KAK is 36 gm while the 100 seed weight of Improved KAK2 is 56 gm. Improved KAK2 not only produces larger seeds but it also leads to ~10% increase in yield and in protein content. This line is being evaluated in “ICAR-AICRP (All India Coordinated Research Projects) on Chickpea” Advanced Varietal trial-1 (AVT1) during rabi season 2019-20 under extra-large seeded kabuli category.

Furthermore, very recently, an informative molecular marker tightly linked to superior natural haplotypes of a CabHLH10 gene has been identified for drought tolerance in chickpea. This marker has been used to transfer drought tolerance characteristic from an Indian landrace/variety (ICC 4958 and Pusa 362) of chickpea into a commercially important Indian variety (ICCV 93954, popularly called as JG 11) that has drought sensitivity. The newly developed chickpea lines exhibited overall 16% enhancement of yield/productivity under drought stress as compared to the parent line ICCV 93954 (JG 11). The newly developed lines are being evaluated in “ICAR-AICRP (All India Coordinated Research Projects) on Chickpea” Advanced Varietal Trail 1 (AVT1) during current Rabi season (2019-20) at different rainfed areas of India prior to possible release as a variety.

Event selection trial of low glucosinolate transgenic mustard BjMYB28-RNAi lines developed at the Institute established the stability of the trait in the open field in collaboration with University of Delhi South Campus. Further, biochemical and yield parameters also was found to be comparable to the check cultivar, Varuna. In addition, the Institute has made substantial progress under the Flagship program towards imparting sheath blight resistance in rice.

In another area towards exploring the role of NO in hypoxia and fruit quality, furthering the molecular lead from the basic studies, a BIRAC BIG grant for establishing start-up to develop an engineered device for increasing shelf-life of fruits and vegetables using hypoxia induced nitric oxide has been received.

Earlier another study revealed differential modulation of specific induced defense responses in local, older, and younger systemic leaves in *Solanum lycopersicum* upon *Spodoptera litura* herbivory using Metabolite profiling, biochemical assays, and transcript analysis. Taking the lead further on two main activities have been planned 1) Use of metabolite chlorogenic acid as spray based formulation to control diverse insects, pests and pathogens in solanaceous vegetables 2) Over expression of the chlorogenic acid biosynthetic gene-HQT in vegetables. Through a MoU

between NIPGR and Mayhco, the major aim is to check efficacy of chlorogenic acid as an anti-herbivore defence molecule against wide range of insect pests.

During the difficult time of the pandemic, NIPGR has ventured in the area of plant based research preparedness against COVID 19. Towards this, three projects have been initiated to test the efficacy of potential of plant produced flavonoids and glucosinolates as anti SARS-CoV2 molecule. Another program emphasized on the production of COVID related antigens and anti-viral proteins using transient expression system in plant.

To sum up, the Institute has made significant progress in its research activities, which are reflected in high-quality publications and some promising technology leads. The results of the same are quite satisfying, as during the academic year 2019-20, NIPGR has published a number of high-quality research articles, many in high impact journals. Some of the research is also leading to translational applications as evident from new plant lines that have either entered field trials or expected to enter the trials soon. Several of NIPGR faculties and researchers were awarded prestigious honors/awards and fellowships in distinct areas for their significant contribution to plant science research during this period. During the reporting period, the Institute has hosted several National/International Conferences/ Workshops/Symposia. Many distinguished scientists and a large number of school/college students from all around the country visited the Institute. The Institute has also organized an 'Open Day' during which over 1000 general public interacted with researchers of the Institute and visited the facilities. Institute is continuously upgrading its research infrastructure in order to effectively pursue the twin goals of conducting high-quality basic research and seeking its application towards product development. Efforts are on to fully utilize the newly created platforms, strengthen the existing facilities and functionalize the National Genomics and Genotyping Facility (NGGF). The Institute is preparing to launch mega-projects in new areas. Overall, the institute had made excellent progress in every endeavor it undertook in the last year and with the help of dedicated staff members, it is poised to steadily march forward in contributing to plant science and thereby the nation building.

Finally, it is a pleasure to acknowledge the contribution of fellow scientists, students, researchers, technical and administrative staffs of NIPGR for the overall development of a vibrant Institute. I would like to thank Dr. Senthil K. Muthappa, Dr. Gopaljee Jha and the team consisting of administrative/technical staff of NIPGR for their help in the preparation of this annual report.

Subhra Chakraborty
Director



Highlights of the Scientific Achievements

Highlights of the Scientific Achievements

The highlights of the scientific achievements of National Institute of Plant Genome Research during 2019-20 under six major research areas of the Institute are given below:

A. Genome analysis and molecular breeding

Identification and characterization of genes regulating iron content in chickpea

(PI: Bhatia Sabhyata)

The present study aims to dissect the iron content trait in chickpea through approaches involving comparative transcriptome analysis RNA-seq based transcriptome analysis of two chickpea genotypes contrasting for seed Fe content under iron-deficient conditions identified several important genes involved in iron transport and signaling which exhibited differential expression between the two genotypes. Differential expressions of few important Fe-responsive genes (*IRT1*, *VIT1*, *VIT4*, *YSL1*, *YSL4*, *FRD3*, *FIT*, *bHLH100*, *bHLH121*, *ferritin*) was validated through qRT-PCR. Global identification of metal ion transporters was performed in different legumes, including chickpea leading to the identification of 367 metal ion transporters. Further, based on the transcriptome study and previous reports, Car_FRD3, Car_YSL4, and Car_VIT7 were selected for further functional characterization. Over-expression and RNAi silenced transgenic lines have been raised and are presently under characterization. These studies will help in understanding the mechanism of iron transport and storage in chickpea, which could be helpful for increasing iron uptake in chickpea.

Dissecting Complex Genetic Architecture of Drought Tolerance in Chickpea

(PI: Parida Swarup K.)

Identifying potential molecular signatures for drought tolerance is essential for achieving higher crop productivity under drought stress. In our study, to identify such molecular tags, we employed an integrated genomics-assisted breeding and functional genomics strategy involving association mapping, fine mapping, map-based cloning, molecular haplotyping, and transcript profiling in an introgression line-based association panel and mapping population of chickpea. We identified a bHLH transcription factor gene *CabHLH10* underlying a major quantitative trait locus (QTL), along with its derived natural alleles and haplotypes governing seed yield under drought stress. A superior haplotype of *CabHLH10* introgressed into the NILs improved root and shoot biomass, thereby enhancing yield and productivity during a drought without compromising agronomic performance. These findings facilitate translational genomics for crop improvement and the development of genetically tailored, climate-resilient, high-yielding chickpea cultivars.

Genome-wide Analysis of Polymorphisms in Diverse Rice Genotypes

(PI: Thakur Jitendra K.)

Being an important trait, rice grain size/weight has been under rigorous selection since domestication. In this study, a link between this trait and domestication-driven evolution has been indicated. In addition to the characterization of novel grain size/weight-associated SNPs, a ~ 6 Mb low diversity region harboring grain weight QTL was identified on chromosome 5, which turned out to be an important evolutionary site with multiple selection sweeps and introgression events and significantly correlated with domestication-related traits. Using the genotyping information of 2491 SNPs in a diverse collection of 3028 accessions, we deployed a Mediator (*MED*) genes-targeted association analysis of 18 different agronomic traits and detected 11 *MED* gene-derived SNPs significantly associated with six traits. SNPs in *MED5_1*, *MED9_1*, *MED34_2*, *MED5_2*, *MED22_2*, and *OsCycC_1*, were found to be associated with grain width (GW), grain weight (HGW), endosperm type (ET), seed coat color (SCC), culm length (CL) and panicle length (PL), respectively. ▽

B. Development and signalling

Comparative transcriptomics of developing seed in two genotypes to determine genes for larger grain size

(PI: Agarwal Pinky)

The process of seed development in LGR, though leading to bigger grain size, involves the expression of a lesser number of genes, in comparison with SN. Despite common pathways being involved in seed development between the two genotypes, certain processes as DNA metabolism and cell cycle have genes either specifically or highly expressed in LGR. This clearly implies that such events contribute to grain size increment. The progression of seed development is relatively slower in LGR, leading to enlargement of cell size and higher grain filling, eventually resulting in a bigger grain.

Extra-large G-proteins (XLG) control immune responses against necrotrophic pathogen *Sclerotinia sclerotiorum*

(PI: Bisht Naveen Chandra)

Despite the obvious importance of *Arabidopsis* XLG genes in plant-pathogen interactions, there have been no reports to date investigating biological functions of XLG proteins during pathogenicity of *S. sclerotiorum* in plant-lineage. Here, we provide several lines of genetic, physiological, and biochemical evidence indicating that *S. sclerotiorum* (or OA alone) leads to enhanced susceptibility in *Arabidopsis xlg123*-triple mutant. In addition, we decipher the key requirement of Brassica XLG genes using a combination of bioinformatics tools, expression studies, and reverse genetic approaches in polyploid *B. juncea* during *S. sclerotiorum* infection. Furthermore, the silencing of *BjuXLG* genes leads to compromised glucosinolate accumulation, which coincided with enhances susceptibility upon infection to *S. sclerotiorum*. Thus, our study is a novel endeavor to delineate the XLG-mediated defense strategy in plants against the necrotrophic pathogen, *S. sclerotiorum*.

Role of phenylpropanoid pathway genes in determining flower and seed colours of chickpea

(PI: Chattopadhyay Debasis)

Domesticated chickpea is of two main types, small and dark color seeded *Desi*, that produces pink or purple flower and large and yellow/light brown seeded *Kabuli* that produces a white flower. Together with other quality components and adaptation traits, two traits, namely, seed size and the color of the seed coat, are considered as the most important agronomic traits according to consumer preference and trade value. Two scientific questions exist in the development of flower and seed colour of chickpea. Whether the flower and seed colour are linked and are the flower and seed colour regulated by the same gene/single metabolic pathway? Based on information in other plants, we targetted two genes involved in the same pathway, namely, LOC101513987 (*CaMATE1*) and LOC101506726 (*CabHLH*) to investigate their role in chickpea flower and seed colour development using RNA silencing. T4 generation homozygous transgenic lines displayed white-colored flower and light brown colored seeds in the *desi* chickpea plants in both the cases, indicating that the flower and seed colours of chickpea are linked and can be regulated by single genes and manipulating single biosynthetic pathway.

Jasmonic acid regulation of lateral root angle

(PI: Laxmi Ashverya)

Root branches grow at specific angles with respect to the gravity vector in order to secure anchorage and capture resources. In this study, we have identified Methyl Jasmonate (MeJA) as a crucial phytohormone involved in determining the branching angle of Arabidopsis LR. We show that MeJA inclines LR to a more vertical orientation, which was found to be dependent on JA biosynthesis, SCF^{COI1}-MYC2, 3, and 4 signaling and auxin machinery and redistribution. Light perception through *PHYTOCHROME A* and *B* (*PHYA* and *PHYB*) and the downstream transcription factor *LONG HYPOCOTYL5* (*HY5*) is necessary for inducing vertical angle by MeJA. Light indirectly via photosynthesis may also lead to the production of sugars. Glc induces wider branching angles and antagonizes the MeJA response in a concentration-dependent manner, which was found to be dependent on *HEXOKINASE 1* (*HXK1*) mediated signalling pathway as well as by stabilizing JAZ9, a negative regulator of JA signalling. Thus, this study highlights the intimate connections between environmental and phytohormone signals and the dual role of light to optimize the branching angle, which is a key determinant of foraging capacity of plants.

Genetic and molecular integration of light and temperature signaling to plant developmental pathways

(PI: Ranjan Ashish)

We have shown that high ambient temperature suppresses the Arabidopsis leaf size by inhibiting cell division. Analysis of cell-cycle genes and *pCyclinB1;1:GUS* plants in response to high temperature supported our observation. The phenotype of *pif4* and *tcp* mutants suggested the involvement of PIF4 and TCP4 in temperature-mediated leaf size control. Biochemical assays showed physical interaction between PIF4 and TCP4 protein, as well as binding of PIF4 and TCP4

to the promoter of cell cycle inhibitor *KRP1* in close proximity. These results suggest that PIF4 and TCP4, together, induce the expression *KRP1* in response to high ambient temperature to suppress cell division and leaf size. We are currently validating the hypothesis using additional biochemical assays as well as genetic analyses. In addition, we are also investigating unique and shared transcriptional signatures of light and temperature treatments across different plant species using comparative transcriptome profiling. Initial results show several unique and shared genes and pathways for shade and high temperature across the plant species, which is being used to generate gene regulatory networks for environmental signals.

Conserved role of *OsAPN/ASPG1* in the regulation of root architecture and drought tolerance in rice/*Arabidopsis*

(PI: Sarkar Ananda K.)

OsAPN is a member of aspartic protease (AP) family, which is having aspartic acid residue in its active site and may be involved in post-translation regulation. We have earlier reported *OsAPN* to be highly expressed on root and upregulated in rice root with robust RSA cultivar. In *Arabidopsis*, the overexpression of both *OsAPN* and *ASPG1* produced longer primary root, while *aspg1-1* mutant produced smaller primary root. The expression of both *OsAPN* and *ASPG1* under *ASPG1* promoter in *aspg1* background could rescue the root developmental defect of *aspg1* mutant in *Arabidopsis*. These results indicate that both genes have a conserved role in root development in both rice and *Arabidopsis*. Overexpression of *OsAPN* in rice promoted root growth, crown roots, and LR, which is predominant at a later stage of development. The overexpression of both *OsAPN* and *ASPG1* provided drought tolerance in rice and *Arabidopsis*, respectively. Thus, our results suggest that both *OsAPN* and *ASPG1* positively regulate root growth and branching, and they confer enhanced drought tolerance if overexpressed in rice and *Arabidopsis*, and function through a potentially conserved molecular mechanism.

Understanding the hormonal regulation of root foraging response during differential nitrogen availability

(PI: Singh Amar Pal)

Nitrogen (N) uptake from the roots and its use efficiency determine the plant performance during differential N availability. Root system architecture (RSA) is an important plant trait that is involved in N uptake from the rhizosphere. We have found that the activity of plant hormones, auxin, and brassinosteroid (BR) regulate the root developmental plasticity during LN condition. Low N (LN) promotes primary root (PR) and lateral root (LR) elongation by increasing the BR activity and response. Further, we have shown that LN dependent increased BR activity promotes PR and LR elongation by increasing the auxin transport rather than the levels. LN treated roots are less sensitive to exogenous auxin (2, 4-D) and had longer PR and LR. Increased PR and LR length during differential or low N condition is considered as a root foraging response to adapt in a fluctuating N environment. Treatment with the auxin transport inhibitor, TIBA repressed the PR and LR length in the roots grew on sufficient N (SN) medium while LN treated roots showed the opposite effect on PR and LR phenotype and showed increased PR and LR growth under similar conditions.

Currently, we are exploring the putative candidate genes/transcription factors that are involved in regulating the RSA during differential/LN condition to improve the N use and uptake efficiency.

A novel cross-talk between MPK3-ABI5-HYL1 regulates seed germination in *Arabidopsis thaliana*

(PI: Sinha Alok Krishna)

In the present study, we report a cross-talk between three distinct pathways, MAP kinases, ABA signaling, and miRNA biogenesis, which are crucial for plant growth and stress response. We found that HYL1, a miRNA biogenesis component is induced by ABA and that its expression is regulated by an ABA-responsive *bZIP* transcription factor, ABI5 in a MAPK dependent manner. MAP kinase signaling is an evolutionarily conserved cascade that transduces external signals to the cellular and nuclear activity. We found that MPK3 and MPK6 is activated by exogenous ABA application and phosphorylate ABI5. The subcellular localization as well as protein stability of ABI5 is governed by this phosphorylation. Further, ABA regulates seed germination and post-germination growth via HYL1, which showed ABA hypersensitivity phenotype. The interaction of ABI5 with HYL1 promoter suggests a cross-talk between ABA signaling, miRNA transcription, and processing. Our study provides a molecular mechanism and physiological response where MPK3-ABI5-HYL1 module controls ABA-mediated seed germination and post-germination growth.

C. Plant responses to abiotic stresses

Dehydration-induced changes in plasma membrane proteome: molecular dynamics of membrane proteins and role in ion transport

(PI: Chakraborty Niranjana)

Dehydration stress affects a large share of the world's agricultural land, and all major crop species are intolerant to such stress conditions. Plasma membrane, as the first line of defense, we screened the dehydration-responsive PM proteome landscape of a grain legume, chickpea. Sequence analysis of 240 DRPs, revealed their detailed physicochemical properties, and recognized several calcium signalling related proteins. We characterized a dehydration-responsive integral PM protein, harboring an EF-hand domain with flanking $\text{Na}^+/\text{Ca}^{2+}$ exchanger (NCX) domains, designated CaNCX. Subcellular localization demonstrated CaNCX as a bona fide PM-resident. Downregulation of *CaNCX* transcripts under dehydration and cold stress, besides ABA-treatment indicated that *CaNCX* might participate in stress response via ABA-dependent pathway. Overexpression of CaNCX in chickpea showed hypersensitivity to dehydration and led to a decrease in sodium/calcium ratio when compared with VC-seedlings. These results strongly suggest that CaNCX functions as a molecular link between Ca^{2+} and Na^+ uptake into plant cells and play regulatory roles in stress adaptation.

Targeting galactolipids metabolism for improving P-use-efficiency in rice

(PI: Giri Jitender)

Rice is the largest consumer of P-fertilisers and has a poor P-use-efficiency. Most of the research efforts are targeted towards improving P-uptake-efficiency. However, a little work has been done on enhancing P-use-efficiency, which implies biomass production per unit of P removed from the soil. Here we attempted to find and explore genes for understanding the mechanism of lipid remodeling adopted by plants for survival in P deficient soils. We identified vital galactolipids biosynthesis genes induced in Pi deficiency, and raised overexpression and CRISPR/Cas9 mediated knockout lines for MGDG and DGDG biosynthesis. *OsMGD3* overexpressing lines displayed an improved P-use-efficiency over the WT plants. We further demonstrated the efficacy of the use of the CRISPR/Cas9 system in raising marker-free lines with precise inheritable mutations in the *OsMGD3* and *OsDGDs* genes. Expectedly, *OsMGD3* KO lines had a poor P-use-efficiency compared to WT. Comprehensive lipidome profiling revealed reduced galactolipids levels in KO lines of seedlings raised in Pi deficient media. Our data revealed a significant role of lipid remodeling in rice's adaptations to Pi deficiency.

Understanding the role of Protein Repairing Enzyme PROTEIN L-ISOASPARTYL METHYLTRANSFERASE (PIMT) in plant growth and survivability during abiotic stress

(PI: Majee Manoj)

Stressful environments accelerate the formation of isoAsp residues in proteins, which detrimentally affect protein structure and function. The enzyme PROTEIN L-ISOASPARTYL METHYLTRANSFERASE (PIMT) repairs other proteins by reverting deleterious isoAsp residues to functional aspartyl residues. We demonstrate that heat and oxidative stress increase isoAsp accumulation in plant proteins, and PIMT activity is essential for restricting such isoAsp accumulation. We show that both PIMT1 and PIMT2

improves stress tolerance by facilitating efficient ROS scavenging by protecting the functionality of antioxidant enzymes from isoAsp-mediated damage during stress. Biochemical and MS/MS analyses revealed that antioxidant enzymes acquire deleterious isoAsp residues during stress, which adversely affect their catalytic activities, and that PIMT repairs the isoAsp residues and thereby restores antioxidant enzyme function. Collectively, our results suggest that the PIMT-mediated protein repair system is an integral part of the stress tolerance mechanism in plants, in which PIMTs protect antioxidant enzymes that maintain proper ROS homeostasis against isoAsp-mediated damage in stressful environments.

Post-transcriptional regulation of heat stress transcription factors (HSFs) by miRNAs in tomato

(PI: Mathur Saloni)

MicroRNAs and heat stress transcription factors (HSFs) are important regulators of plant heat stress response (HSR). Yet, the post-transcriptional regulation of HSFs by miRNA cleavage and its functional relevance has not yet been demonstrated in any plant or animal system. We have

identified three tomato HSFs (*Sly-HSF18*, *Sly-HSF22* and *Sly-HSF25*) as miRNA targets using comprehensive *in-silico* approaches involving the presence of cleaved tags in different degradome libraries followed by validating target cleavage when co-infiltrated with miRNA precursors using transient assays in *Nicotiana benthamiana* and 5' RLM-RACE. Functional analysis of *Sly-HSF18* and *Sly-HSF22* established them as negative regulators of HSR as their transient overexpression made tomato seedlings sensitive to heat stress while their silencing by VIGS enhanced survival of tomato plants and exhibited better physiological parameters in heat stress as compared to vector control plants. However, similar assays on *Sly-HSF25* did not exhibit any significant response to heat stress. Work is in progress to delineate the significance of miRNA:*Sly-HSF25* module in other abiotic stress response and/or plant development.

Jasmonic Acid biosynthesis pathway and its role in potassium (K) deficiency tolerance in chickpea

(PI: Singh Amarjeet)

To minimize the use of K fertilizers and cut the cost of farming, there is a need to discover a mechanism through which crop plants with high K uptake and use efficiency could be generated. Recent studies predict the crucial role of JA in K deficiency response. Thus, we hypothesize that JA biosynthesis genes must regulate the level of JA under low K stress. JA so produced might activate the expression of various genes, especially, transcription factors, which could eventually regulate key processes such as, root development and architecture, and help to enhance K uptake from soil. Thus, we aim at understanding the mechanism of K uptake, transport and its regulation by phytohormone JA in chickpea. So far, we have identified the entire repertoire of JA biosynthesis genes (LOX, AOS, AOC & OPR) in the chickpea genome. *In-silico* analysis showed the presence of *cis*-regulatory elements related to abiotic, biotic, and nutrient deficiency in their promoters. Furthermore, qRT-PCR analysis revealed differential regulation of few LOXs and OPRs under low K stress. These findings suggest the probable role of JA biosynthesis genes in regulating low K stress responses in chickpea.

D. Plant-microbe/insect interactions

Molecular Insights into Chitosan-triggered Immunity against Fungal Disease in Plant

(PI: Chakraborty Subhra)

Oligosaccharide elicitor, chitosan has received considerable attention as key signaling molecule and positive modulator of plant defense. However, initial perception, consequent signaling pathways and biological responses implicated in chitosan-triggered immunity (CTI) remain largely unclear. Currently, there has been a concerted effort to reduce fusariosis in crop plants. Here, we attempted to elucidate the mechanism of CTI in Fusarium wilt resistance in chickpea. Our main findings illustrate that chitosan regulates ECM dynamics, stomatal function and root architecture to restrict pathogen entry. Pectin was found to be a crucial ECM component in first level defense. The cumulative data further demonstrate that interplay of ROS, NO and eATP govern CTI in wilt disease, in addition to induction of PR proteins, CAZymes and PAL activities, besides accumulation

of phenolic compounds downstream of CTI. The immune-related correlation network identified functional hubs in the CTI pathway. Altogether, these shifts led to the discovery of chitosan-responsive networks that cause significant ECM and guard cell remodeling and translate ECM cues into cell fate decisions during fusariosis.

Understanding the molecular intricacies of Rice-*Rhizoctonia* interactions

(PI: Jha Gopaljee)

Sheath blight disease caused by a necrotrophic fungal pathogen *Rhizoctonia solani* is a serious disease and is considered as a major threat to sustainable rice cultivation. In this study, we establish RAV1 as a master transcriptional regulator of defense genes in model plant *Arabidopsis thaliana*. The overexpression of *AtRAV1* provides resistance against necrotrophic fungal pathogen (*Rhizoctonia solani*) in *A. thaliana*. The transgenic lines exhibited enhanced expression of several defense genes, including mitogen-activated protein kinases (*AtMPK3*, *AtMPK4*, and *AtMPK6*). Conversely, the *atrav1* mutant plants were unable to induce the expression of these defense genes and were highly susceptible to infection. Our data suggest that AtMPK3/AtMPK6 proteins are essential for AtRAV1 mediated disease resistance, as knocking out AtMPK3/AtMPK6 rendered the *AtRAV1*^{OE1}/*mpk3* and *AtRAV1*^{OE1}/*mpk6*-2 lines susceptible to infection. Further, we demonstrate that AtRAV1 is a phosphorylation target of AtMPK3 (but not AtMPK6). The phospho-defective variants of AtRAV1 are unable to induce expression of defense genes and fail to impart disease resistance in *A. thaliana*. We also demonstrated that overexpression of tomato ortholog of *AtRAV1* (*SIRAV1*) provides broad-spectrum disease resistance against bacterial (*Ralstonia solanacearum*), fungal (*R. solani*) and viral (Tomato leaf curl virus) infections in tomato.

The role of *Trichoderma asperelloides* in enhancing local and systemic acquired resistance under low nitrate nutrition in Arabidopsis

(PI: Kapuganti Jagadis Gupta)

Nitrogen (N) is essential for growth, development, and defense but, how low N affects defense and the role of *Trichoderma* in enhancing defense under low nitrate is not known. Low nitrate fed *Arabidopsis* plants displayed reduced growth and compromised local and systemic acquired resistance responses when infected with both avirulent and virulent *Pseudomonas syringae* DC3000. These responses were enhanced in the presence of *Trichoderma*. The mechanism of increased local and systemic acquired resistance mediated by *Trichoderma* involved increased N uptake and enhanced protein levels via modulation of nitrate transporter genes. The *nrt2.1* mutant is compromised in local and systemic acquired resistance responses suggesting a link between enhanced N transport and defense. Enhanced N uptake was mediated by *Trichoderma* elicited nitric oxide (NO). Low NO producing *nia1,2* mutant and *nsHb*⁺ overexpressing lines were unable to induce nitrate transporters and thereby compromised defense in the presence of *Trichoderma* under low N, suggesting a signaling role of *Trichoderma* elicited NO. *Trichoderma* also induced SA and defense gene expression under low N. The SA deficient *NahG* transgenic line and the *npr1* mutant was also compromised in *Trichoderma*-mediated local and systemic acquired resistance responses.

Combined stresses in chickpea: Dry root rot disease is aggravated under drought stress

(PI: Muthappa Senthil K.)

We have earlier reported that the DRR disease incidence in the field increases under drought stress. In the current study, the role of other edaphic and environmental factors was systematically studied, both under field and laboratory conditions. Further, the location-specific prediction of DRR disease incidence, a vital aspect for decision making in chickpea cultivation, was also attempted through an artificial neural network (ANN)-based prediction tool. The neural network model is efficient and can be used for the prediction of DRR incidence in chickpea. Further, field trials were conducted at seven different locations under combined drought and pathogen stress treatment and studied the impact of soil moisture, soil nutrient, soil temperature, and other weather factors. The relation between DRR and weather & edaphic factors was compared using the Pearson correlation. The soil moisture, electrical conductivity, potassium, and clay content were found to be significantly correlated with DRR disease incidence.

Silencing AC1 of Tomato leaf curl virus using artificial microRNA confers resistance to leaf curl disease in transgenic tomato

(PI: Prasad Manoj)

Tomato curl leaf disease, caused by Tomato Leaf Curl virus belonging to family Geminiviridae, is a key constraint to tomato cultivation worldwide. Engineering transgenic plants expressing amiRNAs against the AC1 gene of ToLCNDV, which is important for virus replication and pathogenicity, would consequently confer virus resistance and regulate crop loss in the economically important crops. This study relates to an amiRNA developed on the sequence of Arabidopsis miRNA319a, targeting ATP/GTP binding domain of AC1 gene of ToLCNDV. The AC1-amiR was found to regulate the abundance of AC1, providing an excellent strategy in providing defense against ToLCNDV. Transgenic lines over-expressing AC1-amiR when challenged with ToLCNDV, showed reduced disease symptoms and high percentage resistance ranging between ~40–80%. The yield of transgenic plants was significantly higher upon ToLCNDV infection as compare to the non-transgenic plants. Although, the naturally resistance resources against ToLCNDV are not available, this work streamlines a novel amiRNA-based mechanism which may have the potential to develop viral resistance strategies in tomato, apart from its normal symptom development properties.

Comparative functional genomics and use of synthetic hormone-responsive promoter establishes the hormonal landscape which is required for non-canonical nodule development of *Arachis hypogaea*

(PI: Sinharoy Senjuti)

Arachis hypogaea is a dalbergioid legume that diversified the Papilionoids family ~55 million years ago (Mya). *Arachis* forms an unconventional type of nodules where infection thread never forms, rhizobia enter using an intracellular pathway way and generates a uniformly infected central zone containing nodule. Our transcriptome studies and nodule ontology analysis generated a robust and comprehensive platform that identifies differentially regulated genes during the symbiosis of *A. hypogaea* and *Bradyrhizobium SEMIA*. The use of synthetic cytokinin and auxin response

reporter shows a broader cytokinin response with overlapping and distinct auxin response in *Arachis* nodule. A similar pattern of hormonal response has been previously shown in the case of model legume *Medicago truncatula* and *Lotus japonicus*. Our study is highlighting that this central conserved hormonal landscape can be predated ~55 Mya and is conserved throughout the papilionoid legumes.

Induction and suppression of rice innate immune responses during bacterial infection of rice

(PI: Sonti Ramesh V.)

Plant cell wall degrading enzymes (CWDE) are important secreted virulence factors of the rice pathogen, *Xanthomonas oryzae* pv. *oryzae* (Xoo). Conversely, the action of these enzymes in degrading plant cell walls serves as a mark of infection and results in the elicitation of Pathogen Triggered Immunity (PTI) in rice. Xoo suppresses these immune responses using four proteins, namely Xanthomonas outer protein N (XopN), XopQ, XopX, and XopZ that are secreted through the type 3 secretion system (T3SS) of the bacterium. The XopQ, XopX and XopZ proteins interact with five distinct rice Gf (14-3-3) proteins and this interaction is necessary for the ability of these proteins to suppress rice immune responses. Initial results suggest that four of these Gfs are positive regulators of innate immunity, while the fifth Gf is a negative regulator of innate immunity. The XopQ and XopX proteins interact with each other in planta and this appears to trigger rice immune responses that are akin to Effector Triggered immunity (ETI). Five other Xoo T3SS secreted proteins, namely XopU, XopV, XopP, XopG, and AvrBs2, can individually suppress XopQ-XopX triggered immune responses. These results suggest a complex interplay of Xanthomonas T3SS effectors in the suppression of both PTI and ETI to promote virulence on rice.

Calcium channel CNGC19 mediates basal defense signaling to balance colonization of *Piriformospora indica* on *Arabidopsis* roots

(PI: Vadassery Jyothilakshmi)

The activation of calcium signaling is a crucial event for perceiving environmental stress. Colonization by *Piriformospora indica*, a growth promoting root endosymbiont activates cytosolic Ca^{2+} in *Arabidopsis* roots. In this study, we analyze the role of calcium channels responsible for Ca^{2+} fluxes and its functional relevance. Expression profiling revealed that CNGC19 is a early activated gene, induced by unidentified components in *P. indica* cell wall extract. Functional analysis revealed that loss-of-function of CNGC19 results in growth inhibition by *P. indica*, due to increased colonization and loss of controlled *P. indica* growth. *P. indica* cell wall extract induced cytosolic Ca^{2+} elevation is reduced in *cngc19* mutant indicating a role in generation of Ca^{2+} cyt elevation. MAMP-triggered immunity (MTI) is compromised in *cngc19* lines as evident from unaltered callose deposition, reduced cis-OPDA, JA and JA-Ile levels and downregulation of jasmonate and other defense related genes which contributes to shift towards pathogenic response. Loss-of-function of CNGC19 results in inability to modulate indole glucosinolate content during *P. indica*-colonization. CNGC19 mediated basal immunity

Genomics assisted identification of fungal disease-resistant genes in crop plants and their utilization to develop new varieties with enhanced fungal resistance

(PI: Verma Praveen)

We have successfully fine-mapped chickpea QTLs for *Ascochyta* blight resistance, developed co-dominant markers, and have undertaken a translation work to prove the role of our genetic findings in field conditions by MABC introgression into AB susceptible mega varieties. The rate of marker-assisted validity of F₁ hybrids is encouraging. The next round of crossings were carried out in 2019-20 season for integrating AB and FW alleles into a single hybrid. The new set of AB resistance-associated co-dominant markers have already been verified in many chickpea desi and Kabuli accessions, and we hope that in more accession, they will be verified in near future. We have also identified chickpea transcription factors as targets of *Ascochyta rabiei* effectors and proved their physical interaction by Y2H, BiFC, and affinity pull-down. In the Wheat-*Bipolaris* work, we have developed more STMS markers for fine-mapping the major QTL and physically map the resistance gene under this QTL.

E. Computational and structural biology

DNA Repair and Recombination in Plants

(PI: Gaur Vineet)

The project on the structural and biochemical studies of the DRR mechanism in plants was initiated less than a year back. At the present moment, we are in the process of cloning, expressing, and purifying various resolvases associated with Holliday Junction resolution from a variety of different plants. The rationale behind purifying proteins from various plants is to increase the likelihood of obtaining crystal hits for structural studies. Up to now, we managed to purify a couple of proteins with sufficient yield for biochemical experiments and crystallization trials. The immediate future goals are to check the catalytic activities, substrate specificities, and mechanism of Holliday Junction resolution of all the purified proteins. Long term goals are to elucidate the structure of these resolvases in complex with appropriate DNA substrates and to generate a model to comprehend the molecular basis of homologous recombination among plants.

Development of tsRNA-Toolkit, PtRNAdb database, and identification of tRFs in different plant species

(PI: Kumar Shailesh)

A longer-term aim to study tRNAs, will be to enrich the biological information content of the databases, e.g. profiles, the description of tRNA gene expression profiles, the description of occurring tRFs and 3D structure models/clover leaf models of all the tRNAs. As tRFs are established to be ubiquitous and conserved across different domains of life, our tool is believed to be fast, efficient and convenient to identify tsRNAs using small RNA-seq datasets in a wide spectrum of organisms. This will aid in the investigation of non-canonical functions of tRNA and the implications of tsRNAs in pathways governing cellular physiology under different conditions,

tissues and developmental stages across a broad spectrum of organisms. The global identification of tsRNAs will facilitate deciphering common conserved pathways and their mechanism of unexplored regulatory action.

Comparative genomics of Star related Lipid Transfer (START) domains across wild and cultivated rices

(PI: Yadav Gitanjali)

START domains are abundant in plants and play a crucial role in plant physiology and development. In this work, we have identified the START proteins in ten *Oryza* genomes and classified these into various structural classes based on additional START-domain associated functional domains, further phylogenetic analysis confirmed significant evolutionary divergence among these structural classes. The START genes are distributed among almost all chromosomes of *Oryza* genomes and showed class specific conservation on chromosomal location. Our study confirms the START gene family expansion by different modes of duplications in *Oryza* genomes suggesting their functional importance of all the copies of the START genes. Further our analysis on Ka/Ks and *in-silico* gene expression analysis confirmed their functional importance. Additionally, different structural class START genes have significant roles at various stages of development and in different anatomical parts. The present work on START gene family in *Oryza* species will provide a step towards exploring the functional mechanism and substrate preference of plants START domains.

F. Nutritional traits in crops

Improvement of nutritional quality, post-harvest fruit stability and pathogen resistance in edible crops

(PI: Datta Asis)

Earlier studies revealed the importance of monoterpenes in the biosynthesis of ripening-associated flavour volatiles and geraniol is found to regulate fruit senescence. We have identified many geraniol responsive genes like apoptosis inhibitory protein 5 (*API5*), BAG-domain proteins etc. Characterization of these two genes may elucidate its role in ripening. Rice calli was transformed with pCAMBIA:LeC5SD construct and its regeneration attempted with varying concentrations of hormones and selection marker. Additionally, RNA samples of WT and *FvC5SD* overexpressed tomato plant is given for RNA sequencing. N-acetylglucosamine (GlcNAc) is found essential for *Magnaprtha oryzae* (*M. oryzae*) pathogenicity. We identified a putative transcription factor MoPhoG, and its mutant was generated through homologous recombination. To elucidate GlcNAc's role in the virulence of *Leishmania donovani* (*L. donovani*), the enzyme N-acetyl glucosamine-6-phosphate deacetylase (LdNAGD) has been kinetically characterized. It revealed the enzyme follows conventional Michaelis-Menten kinetics. The expression pattern of LdNAGD has been established and is found to be expressed in both forms of *L. donovani*.

Metabolic reprogramming define the bottleneck of pathway regulation for plant specialized metabolites biosynthesis in banana fruit

(PI: Pandey Ashutosh)

Bananas are vital staple fruit crop for food security in developing countries. Banana improvement through breeding exercises has been challenging for various reasons. Therefore, genetic engineering-based manipulations hold great promise for the crop improvement. For this purpose, qualified target genes need to be identified. In this study, we identified and characterized three candidate anthocyanin specific regulatory proteins from *M. acuminata*. Using protein-protein interaction studies, we have also characterized the interacting MYC and TTG1 proteins from *M. acuminata* for the formation of MBW complex. Our co-transfection analysis using protoplast of banana ECS clearly suggested that neither MYB nor MYC alone can transactivate anthocyanin biosynthesis in banana. However, combination of MYB and MYC along with TTG1 can successfully transactivate the promoters of anthocyanin biosynthesis genes in *M. acuminata*. Integration of our banana metabolomics studies with the current molecular studies will further strengthen omics-wide associations of molecular signatures especially agronomic traits via biochemical markers for gene discovery and functional characterisation.



Publications and Patents

Publications

(April 2019 to March 2020)

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Patents

(April 2019 to March 2020)

2019

Granted

- ❖ Thakur JK; Dahiya P and Bhat DS (2019) Recombinant Microorganism and uses thereof (326127).

2020

Filed

- ❖ Kapuganti Jagadis Gupta (2020) System for delaying ripening of agriculture produces (Indian patent application no.: 202011010183).
- ❖ Kapuganti Jagadis Gupta, Bulle Mallesham and Kumari Aprajita (2020) Method for extending shelf-life of agricultural produce (Indian patent application no.: 201911009428).
- ❖ Kapuganti Jagadis Gupta, Bulle Mallesham and Kumari Aprajita (2020) Method for extending shelf-life of agricultural produce (PCT no.: PCT/IN2020/050219).
- ❖ Prasad Manoj and Sharma Namisha (2020) Nucleic Acids Encoding Artificial RNA against ACI Gene And Methods of Developing Tolerance against ToLCNDV Infection (Indian patent application no.: 202011008729).

Awards and Honours

Awards and Honours

Faculty

Dr. Ramesh V. Sonti

- ❖ Prof. Panchanan Maheshwari Memorial Lecture 2019, University of Delhi, November 9, 2019.
- ❖ Prof. K.K. Nanda Memorial Lecture Award-2019 during the National Conference of Plant Physiology at Kerala Agricultural University, Thrissur, December 19, 2019.

Prof. Asis Datta

- ❖ Prof. A.K Sharma Memorial Lecture Award by National Academy of Sciences (NASI), at NIPGR New Delhi, April 27, 2019.

Dr. Subhra Chakraborty

- ❖ J C Bose National Fellowship Award, SERB-DST, 2020.
- ❖ Sectional President, Biological Sciences, 89th NASI Annual Session, 2019.
- ❖ Elected Council Member, Human Proteome Organization (HUPO).
- ❖ Member, Human proteome project-Scientific advisory board (HPP-SAB).
- ❖ Co-Chair, Food & Nutrition Initiative, under Biology/Disease-driven Human Proteome Project (HPP).
- ❖ Elected Council Member and Country Representative for India in Asia Oceania Agricultural Proteomics Organization (AOAPO).
- ❖ President, Proteomics Society, India (PSI).

Dr. Alok Krishna Sinha

- ❖ Fellow of Indian National Science Academy (FNA), New Delhi.
- ❖ Fellow of Indian Academy of Sciences (FASc), Bangalore.

Dr. Manoj Prasad

- ❖ Golden Peacock Award, at 14th International Symposium on Buckwheat organized by International Buckwheat Research Association, Slovenia, September 3-6, 2019.

Dr. Gitanjali Yadav

- ❖ Hamied Fellowship Award, by University of Cambridge, U.K., 2019.
- ❖ Elected Fellow of St Edmund's College, University of Cambridge, UK, 2019.
- ❖ Young Leaders Award by Global Young Academy (GYA) at World Science Forum (WSF) Budapest, Hungary, 2019.

Dr. Manoj Majee

- ❖ Elected Fellow of National Academy of Sciences, India (FNASc), 2019.
- ❖ Elected Fellow of West Bengal Academy of Science & Technology (WAST). 2019.

Dr. Naveen Chandra Bisht

- ❖ S. Ramachandran National Bioscience Award for Career Development, by Department of Biotechnology, Govt of India, 2019.

Dr. Jagadis Gupta Kapuganti

- ❖ Outstanding Scientist Award by ISAC conference, Chennai, 2020.

Dr. Senthil-Kumar Muthappa

- ❖ Elected Fellow of National Academy of Agricultural Sciences (NAAS).

Dr. Jitender Giri

- ❖ Prof. Y.S. Murty Medal for Young Scientist by Indian Botanical Society, 2019.
- ❖ Prof. Hiralal Chakraborty Award by Indian Science Congress, 2019.
- ❖ Swarna Jayanti Fellowship by Department of Science and Technology, India, 2020.

Dr. Swarup K. Parida

- ❖ Fellow, National Academy of Agricultural Sciences (NAAS), India, 2019
- ❖ NASI–Reliance Industries Platinum Jubilee Award in Biological Sciences- 2019 from The National Academy of Sciences, India (NASI), 2019.
- ❖ Expert member to develop DNA Fingerprinting protocol of rice and chickpea at Indian Council of Agricultural Research (ICAR)-National Bureau of Plant Genetic Resource (NBPGR).

Dr. Jyothilakshmi Vadassery

- ❖ EMBO Global Investigator, 2020 - 24.
- ❖ Head, Max Planck-India Partner Group on Chemical Ecology, 2015 - 20.
- ❖ Nominated Member, Board of Studies, Amity Institute of Microbial Technology, AMITY University, Uttar Pradesh.

Dr. Aashish Ranjan

- ❖ Best Oral presentation Award on Integrative Plant Biochemistry and Biotechnology at National Conference, Hyderabad, Nov 8, 2019.

Dr. Senjuti Sinharoy

- ❖ SERB-Early Career Research Award by Department of Science and Technology, India, 2019.

Dr. Amarjeet Singh

- ❖ Young Achiever's Award - 2020 by Institute of Scholars, Bangalore, March 2020.

Dr. Ashutosh Pandey

- ❖ Alexander von Humboldt Fellowship (AvH Fellow), by Alexander von Humboldt Foundation, Germany, February 1, 2019.

Students

Dr. Arunima Sinha (Dr. Subhra Chakraborty)

- ❖ Received student/ECR travel award co-funded by the Proteomics Society India (PSI) and HUPO 2019 in 18th Human Proteome Organization World Congress - HUPO 2019, Adelaide, Australia, September 18, 2019.

Dr. Kanika Narula (Dr. Subhra Chakraborty)

- ❖ Received HUPO 2019 Student/ECR Travel Award in 18th Human Proteome Organization World Congress - HUPO 2019, Adelaide, Australia, September 18, 2019.

Dr. Pragya Barua (Dr. Niranjan Chakraborty)

- ❖ Received student/ECR travel award co-funded by the Proteomics Society India (PSI) and HUPO 2019 in 18th Human Proteome Organization World Congress - HUPO 2019, Adelaide, Australia, September 18, 2019.

Dr. Divya Rathi (Dr. Niranjan Chakraborty)

- ❖ Received HUPO 2019 Student/ECR Travel Award in 18th Human Proteome Organization World Congress - HUPO 2019, Adelaide, Australia, September 18, 2019.

Ms. Ruchika and Mr. Jogindra Naik (Dr. Ashutosh Pandey)

- ❖ Second Best Poster Award, on topic entitled 'Unravelling the molecular mechanism of regulatory proteins involved in Anthocyanin biosynthesis in Banana (*Musa acuminata*)' at International Conference on Applied Biology organised by School of Biotechnology, Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir, India, November 4 - 6, 2019.

Dr. Renu Kumari (Dr. Gitanjali Yadav)

- ❖ ECR Award by IUBS to organize and attend Convention on Biodiversity (CBD), Egypt.

Mr. Amish Kumar (Dr. Gitanjali Yadav)

- ❖ Exchange Student award to work at Dept of Plant Science, Cambridge.
- ❖ Travel Award to attend and give Oral Talk at CNA 2019, Lisbon, Portugal.

Ms. Citu Gulia (Dr. Gitanjali Yadav)

- ❖ Exchange Student award by GCRF TIGR2ESS Program to work at Dept of Plant Science, Cambridge, 2020.

Ms. Deevita Srivastava (Dr. Senjuti Sinharoy)

- ❖ Dr. Shyama Prasad Mukherjee (SPM) Fellowship award, CSIR, January 1, 2020.

Ms. Harshita Bharti Saksena (Dr. Ashverya Laxmi)

- ❖ DBT-CTEP Travel Grant Award, January 23, 2020.
- ❖ CSIR Foreign Travel Award, February 17, 2020.

Mr. Vadivel Murugan Irulappan (Dr. Senthil-Kumar Muthappa)

- ❖ Best poster presentation award in North Zonal Seminar on Crop Productivity and Stress Management by the Indian Society for Plant Physiology at Chandra Shekhar Azad University of Agriculture and Technology, Kanpur (U.P), February 22, 2020.

Mr. Roshan Kumar Singh (Dr. Manoj Prasad)

- ❖ Best oral Presentation award at International Conference on ‘Advances and Innovations in Biotechnology for Sustainable Development”, Madhya Pradesh, April 7, 2019.

Dr. Namisha Sharma (Dr. Manoj Prasad)

- ❖ INSA Young Scientist Medal, Indian National Science Academy, New Delhi, December 18, 2019.
- ❖ SERB Women Excellence Award, DST-Science and Engineering Research Board, Govt. of India, March 3, 2020.
- ❖ Young Scientist Award, International Conference of Virology (VIROCON 2020), Indian Virological Society, New Delhi, February 18 - 20, 2020.

Mr. Ashish Prasad (Dr. Manoj Prasad)

- ❖ Newton-Bhabha PhD Placement Award, Department of Biotechnology, Govt. of India, January 7, 2020.
- ❖ Best Poster Award in International Conference of Virology (VIROCON 2020), Indian Virological Society, New Delhi, February 18 - 20, 2020.

Ms. Shambhavi (Dr. Manoj Prasad)

- ❖ Best Poster Award, International Conference of Virology (VIROCON 2020), Indian Virological Society, New Delhi, February 18-20, 2020.



Activities of the Institute

International Visits

Dr. Subhra Chakraborty

- ❖ Visited Adelaide, Australia to deliver invited keynote talk in the “18th Human Proteome Organization World Congress and HPP-focused Day”, September 12 - 19, 2019.
- ❖ Visited University of Sydney, Australia, September 24, 2019.

Dr. Manoj Prasad

- ❖ Visited Adagio Vienna City, Leopoldstadt, Vienna, Austria to attend and deliver a lecture in the international conference on 'Plant Transformation & Biotechnology V', July 2 - 5, 2019.
- ❖ Visited London, UK to attend joint meetings, for the Brazil-China-India-UK as part of the Indo-UK Collaborative project (CINTRIN), December 2 - 5, 2019.

Dr. Gitanjali Yadav

- ❖ Visited Cambridge, UK for DBT - Cambridge Lectureship, September/December, 2019.
- ❖ Visited BudaPest, Hungary to attend World Science Forum, Nov 2019.
- ❖ Visited Zurich, Switzerland to attend 43rd New Phytologist Symposium, July 2019.
- ❖ Visited Cambridge, UK for DBT - Cambridge Lectureship, February 2020.

Dr. Ashverya Laxmi

- ❖ Visited Mendel University, Brno, Czech Republic to deliver invited lecture in Plant Development and Production Biology conference, September 2019.

Dr. Jagadis Gupta Kapuganti

- ❖ Visited Voronezh, Russia to deliver inaugural talk at Post - Genomic Technologies conference, October 7 – 12, 2019.
- ❖ Visited Glasgow UK, September to deliver talk at Plant Cell & Environment 40th Anniversary Symposium, 4 – 6, 2019.
- ❖ Visited Taipei, Taiwan to attend International Society of Plant Anaerobiosis Conference, June 1 - 6, 2019.

Dr. Saloni Mathur

- ❖ Visited Rockefeller University, New York, USA for 'The G10K-VGP/EBP Meeting', August 30, 2019.

Dr. Jyothilakshmi Vadassery

- ❖ Visited University of Ghent, Belgium to attend International meeting on Regulatory Oxylipins, April 1 - 4, 2019.
- ❖ Visited Heidelberg, Germany to attend EMBO Global Investigator Network selection meeting at EMBL, November 12, 2019.

Dr. Senjuti Sinharoy

- ❖ Visited Wuhan, China to deliver talk at 21st International Conference on Nitrogen Fixation (ICNF 2019) on topic entitled 'Pathogenesis-Related-1 like proteins play an important role Peanut (*Arachis hypogaea*) nodule development', in Section 3: Evolution of root nodule symbiosis, October 2019.

Dr. Ashutosh Pandey

- ❖ Visited University of Bielefeld, Germany for 'Resumption of Alexander von Humboldt Fellowship' for six months, 2019.

Invited Lectures

Dr. Ramesh V. Sonti

- ❖ Keynote Address in the Symposium on Trait Improvement in Rice: Application of emerging technologies at Kerala Agricultural University, Kochi, April 8, 2019.
- ❖ Talk in the meeting on the theme “Plant Stress Biology & Food Security”, on topic entitled “Development of a bacterial blight resistant rice variety” at ICGEB, April 19, 2019.
- ❖ Delivered lecture in the School of Environmental Sciences, JNU on the occasion of Earth Day, April 22, 2019.
- ❖ Chief Guest on the occasion of Annual Day Function of Ram Lal Anand College, New Delhi on April 25, 2019.
- ❖ Delivered lecture at CDFD, Hyderabad, June 13, 2019.
- ❖ Delivered lecture in the Brainstorming Session on “Enhancing Science Culture in Agricultural Research Institutions” by NAAS, New Delhi, June 25, 2019.
- ❖ Delivered a talk (Mcube-2019) at CDFD, Hyderabad, July 11, 2019.
- ❖ Delivered talk in the “Fourth National Workshop on TILLING and Genome Editing in Crop Plants” in University of Hyderabad, July 17, 2019.
- ❖ Chief Guest on the occasion of Foundation Day in the ICAR-NBPGR, New Delhi August 1, 2019.
- ❖ Delivered lecture on the Theme “From Basic to Translational Research” in UGC-HRDC, JNU, August 23, 2019.
- ❖ Delivered talk as Chief Guest in the Annual Day of CSIR-NBRI, Lucknow, October 25, 2019.
- ❖ Talk as Chief Guest at National Conference on “Insect-Plant Biology in 21st Century” in Deshbandhu College, University of Delhi, November 5, 2019.
- ❖ Delivered an invited talk at AMI-2019 Annual Conference and International Symposium on “Microbial Technologies in Sustainable Development of Energy, Environment, Agriculture and Health at Central University of Haryana, Mahendergarh, November 16, 2019.
- ❖ Delivered Institute Day Lecture as Chief Guest at Institute of Science, BHU, Varanasi, December 16, 2019.
- ❖ Delivered Lecture in the National Symposium on Database Development & Biocuration in the Department of Plant Molecular Biology, University of Delhi South Campus, December 17, 2019.
- ❖ Delivered a Colloquium at IISER Tirupati, January 29, 2019.
- ❖ Delivered a talk at National Conference on “Frontiers in Plant Biology” at Department of Plant Science, University of Hyderabad, January 30, 2020.

Dr. Niranjan Chakraborty

- ❖ Delivered lecture in the “18th HUPO Congress 2018” at Adelaide, Australia, September 15 - 19, 2019.
- ❖ Delivered lecture in the conference on “Current Trend in Genomics and Proteomics pertaining to Biological Science” at Interdisciplinary Biotechnology Unit, Aligarh Muslim University, Aligarh, Uttar Pradesh, November 5 - 7, 2019.
- ❖ Delivered lecture in the “International Conference on Translational Research” at National Centre for Cell Science [NCCS], Pune, Maharashtra, November 9 - 10, 2019.
- ❖ Delivered lecture in the “11th Annual meeting of Proteomic Society, India (PSI) 2019 and International Conference” at Karnal, Haryana, December 1 - 3, 2019.
- ❖ Delivered lecture in the “4th Plant Proteomics workshop” at the Department of Botany, University of Delhi, New Delhi, December 23 - 27, 2019.
- ❖ Keynote Speaker in the national conference on 'Emerging Trends in Plant Science Research (ETPSR 2020) at Department of Botany, Ravenshaw University, Cuttack, Odisha, March 1 - 3, 2020.

Dr. Subhra Chakraborty

- ❖ Delivered invited keynote lecture and chaired a session in the National Conference on “Emerging trends in plant science research (ETPSR 2020)”, Ravenshaw University, Cuttack, March 1 - 2, 2020.
- ❖ Delivered invited lecture in Refresher Course “Advanced methods in teaching and research” at Faculty Development Centre, Tripura University, Tripura, February 10 - 13, 2020.
- ❖ Delivered invited lecture in the “10th Winter Institute in Global Health”, BITS, Pilani, Hyderabad, January 13 - 14, 2020.
- ❖ Delivered invited lecture in the “107th Indian Science Congress Association Meeting”, UAS, Bengaluru, January 03 - 06, 2020.
- ❖ Delivered Presidential Address (Biological Science) in the NASI 89th Annual Meeting, ICAR-NAARM, Hyderabad, December 21 - 23, 2019
- ❖ Delivered invited lecture in the Bioprocessing India Conference 2019, CSIR-CFTRI, Mysore, December 14 - 16, 2019.
- ❖ Delivered invited lecture in the 11th annual meeting of PSI and International conference on “Proteomics for system integrated bioomics, one health and food safety”, ICAR-NDRI, Karnal, December 2 - 4, 2019.
- ❖ Delivered invited lecture in the 5th International Conference on Translational Research: Recent Trends in Pre-translational to Translational Research, NCCS, Pune, November 9 - 10, 2019.
- ❖ Delivered invited lecture in the Science & Technology Sensitization Programme for Women, Central University of Haryana, Haryana, November 6 - 7, 2019.
- ❖ Delivered invited keynote lecture in the “18th Human Proteome Organization World Congress and HPP-focused Day”, Adelaide, Australia, September 12 - 19, 2019.

- ❖ Delivered an invited mentor talk in DBT-TWAS conclave, Chennai, August 8 - 9, 2019.
- ❖ Delivered invited lecture in the “PROVECTUS PLANTAE-2019 International Conference on Exploring the Scope of Plant Genetic Resources”, Department of Botany, University of Kerala, Kerala, May 22 - 23, 2019.
- ❖ Delivered invited lecture in a one-day workshop on “A Primer on Proteomics”, ICMR-NIRRH, Mumbai, April 23, 2019.

Dr. Debasis Chattopadhyay

- ❖ Delivered talk on Comparative analysis of chickpea genome at NIPB, October, 2019.
- ❖ Delivered talk on Genomics and bioinformatics NIPGR-DISC workshop, February 15, 2020.

Dr. Alok Krishna Sinha

- ❖ Delivered lecture on topic entitled “OsMPK3, the most versatile Mitogen Activated Protein Kinase member in rice”, at Plant Stress Biology and Food Security meeting, ICGER, New Delhi, August 23, 2019.
- ❖ Delivered lecture on topic entitled “Role of mitogen activated protein kinase cascade in light and submergence signalling in plants” at South Asia University, New Delhi, August 30, 2019.
- ❖ Delivered lecture on a topic entitled “Role of mitogen activated protein kinase cascade in light and submergence signalling in plants” at the Department of Botany, BHU, Varanasi, August 30, 2019.
- ❖ Delivered popular lectures to school students on “Career and scope in plant science research” at Rajkiya Balika Uchh Mahavidyalaya, Jaisalmer, Rajasthan, December 5, 2019.
- ❖ Delivered lecture on topic entitled The Versatile Role of MAPK Cascade module “MKK3-MPK6-MYC2” in *Arabidopsis thaliana*” at National Conference on Frontiers in Plant Biology at Department of Plant Sciences, University of Hyderabad, Hyderabad, January 31, 2020.

Dr. Sabhyata Bhatia

- ❖ Delivered invited talk on topic "Understanding the chickpea-rhizobia dynamics utilizing coding and non-coding transcriptomes and functional characterization" at International Conference on 'Pulses as the Climate Smart Crops: Challenges and Opportunities' (ICPulse2020) at ICAR-Central Institute of Agricultural Engineering (CIAE), Bhopal, Madhya Pradesh, February 10 - 12, 2020.

Dr. Manoj Prasad

- ❖ Delivered talk on 'Global food security and climate change: some technological interventions' at International Conference on Advances and Innovations in Biotechnology for Sustainable Development, AKS University, Satna, Madhya Pradesh, April 5 - 7, 2019.

- ❖ Delivered talk on 'Multi-omics tools in crop improvement' at DBT-Star College programme, DBT-IBSD, Shillong, Meghalaya, April 24, 2019.
- ❖ Delivered talk on 'Multi-omics tools for crop improvement' at Bioinformatics workshop on Basics of Bioinformatics and its application for applied Life Sciences, GBPUA & T, Pantnagar, Uttarakhand, April 27 - 29, 2019.
- ❖ Delivered talk on 'Journey in understanding genetics and genomics of plants' at 10th Ramalingaswami Re-entry Fellowship Conclave, Hyatt Regency, Gurgaon, April 28, 2019.
- ❖ Delivered talk on 'Global Food Security and Climate Change - Some Technological Interventions' at Dept. of Botany, School of Life Sciences, Sikkim University, Gangtok, Sikkim, May 16, 2019.
- ❖ Delivered talk on 'Multi-omics tools for crop improvement' at St Joseph's college, Darjeeling, West Bengal, May 21, 2019.
- ❖ Delivered talk on 'Molecular Breeding with special reference to NGS, Genomics Assisted Marker Assisted Selection in crops (Tea a case study)' at Quality control Laboratory, Tea Board of India, Tea Park, Siliguri, West Bengal, May 23, 2019.
- ❖ Delivered talk on 'Role of proteasomal pathway gene(s) in combating virus infection in plants' at Department of Biotechnology, University of North Bengal, Siliguri, West Bengal, May 23, 2019.
- ❖ Delivered talk on 'Role of epigenetics and proteasomal pathway gene(s) in combating virus infection in plants' at DBT-NABI, Mohali, Chandigarh, July 12, 2019.
- ❖ Delivered talk on 'Multi-omics tools for crop improvement' for Modern School students at DBT-NIPGR, New Delhi, August 30, 2019.
- ❖ Delivered talk on 'Engineering abiotic stress tolerance in plants: A study on SisHSP27 of foxtail millet (*Setaria italica* L.)' at 14th International Symposium on Buckwheat “DIVERSIFYING FOOD SYSTEMS FOR HEALTH AND NUTRITIONAL SECURITY”, NEHU, Shillong, Meghalaya, September 3, 2019.
- ❖ Delivered talk on Next-Generation-Sequencing for crop improvement at 21 days CAFT training on “Next Generation Sequencing and its Applications in Plant Sciences” ICAR-NIPB, New Delhi, September 19, 2019.
- ❖ Delivered talk on 'Role of epigenetics and proteasomal pathway gene(s) in combating virus infection in plants' at IISER-Kolkata, West Bengal, September 23, 2019.
- ❖ Delivered talk on 'Engineering abiotic stress tolerance in plants: A study on SisHSP27 of foxtail millet (*Setaria italica* L.)' at national Seminar on Advancement in plant sciences: An insight, Department of Botany, Calcutta University, Kolkata, West Bengal, September 30, 2019.
- ❖ Delivered talk on 'Analysis of model plant genome' under DBT Star college scheme at Sri Krishna Arts and Science College, Coimbatore, Tamil Nadu, October 3 - 4, 2019.
- ❖ Delivered talk on 'Advances in Genetics and Genomics of Foxtail Millet (*Setaria italica*) for Crop Improvement of Millets, Cereals and Bioenergy Grasses' at NAHEP-CAAST training programme on Genomics-assisted breeding for crop improvement, ICAR-IARI, Genetics Division, New Delhi, October 10, 2019.

- ❖ Delivered talk on 'Role of epigenetics and proteasomal pathway gene(s) in combating virus infection in plants' at 21 days Winter School on “Breeding and Genomic tools for Stress resistance in vegetable crops”, ICAR-IARI, Vegetable Science Division, New Delhi, October 24, 2019.
- ❖ Delivered talk on "Structural and functional genomic interventions in the C4 model, foxtail millet (*Setaria italica* L.) towards enabling climate resilient agriculture' at national conference on “Integrative Plant Biochemistry and Biotechnology” ICAR-IIRR, Hyderabad, November 8, 2019.
- ❖ Delivered talk on 'Editing the genomes for designer crops' Mentor talk for DST-INSPIRE programme, Deshbandhu college, New Delhi, December 20, 2019.
- ❖ Delivered talk on 'Role of epigenetics and proteasomal pathway gene(s) in combating virus infection in plants' at IISER-Bhopal, Bhopal, Madhya Pradesh, December 23, 2019.
- ❖ Delivered talk on "Structural and functional genomic interventions in the C4 model, foxtail millet (*Setaria italica* L.) towards enabling climate resilient agriculture' at National Conference on Recent Advances and Trends in Biotechnology, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, January 9 - 10, 2020.
- ❖ Delivered talk on 'Role of smallRNAs in combating virus infection in plants' at national Conference on Frontiers of Plant Biology-2020, School of Life Sciences, Univ. of Hyderabad, Hyderabad, January 31, 2020.
- ❖ Delivered talk on 'Role of smallRNAs in combating virus infection in plants' at National symposium on Recent Advances in fungal diversity, plant-microbes interaction and disease management- RFPIDM-2020, BHU, Varanasi, Uttar Pradesh, February 28 - 29, 2020.

Dr. Praveen Verma

- ❖ Delivered talk on 'Advances in plant sciences research: From basic to translation' in the 24th Refresher Course in Life Sciences & Biotechnology at Human Resource Development Centre, Jawaharlal Nehru University, New Delhi, August 26, 2019.

Dr. Jitendra K. Thakur

- ❖ Delivered talk on 'Making biotechnological sense of basic biology' in International Conference on 'Advances and Innovations in Biotechnology for Sustainable Development (AIBioSD-2019)' Department of Biotechnology, AKS University, Satna, Madhya Pradesh, April 5 - 7, 2019.
- ❖ Delivered a lecture on 'Basic Research Leading to Improvements in Agriculture' Refresher Course in Life Sciences, Centre for Professional Development in Higher Education, UGC-HRDC, University of Delhi, June 29, 2019.
- ❖ Delivered talk on 'Making Biotechnological Sense of Basic Research' in National seminar on Frontiers in Biological Sciences-III, PG Department of Microbiology, St. Xavier's College, Kolkata, September 21 - 22, 2019.

- ❖ Delivered talk on 'Structure and function of plant Mediator complex' at Department of Life Sciences, Indian Institute of Science Education and Research, Kolkata, September 24, 2019.
- ❖ Delivered talk on 'Amalgamation of Bioinformatics and Molecular Biology to Understand Biology' in National Conference on Recent Advances and Innovations in Artificial Intelligence, Machine Learning and Deep Learning Satellite Campus, Kargil, University of Kashmir, October 3 - 5, 2019.
- ❖ Delivered talk on 'Structure and function of plant Mediator complex' in Conference on Current Trend in Genomics and Proteomics pertaining to Biological science, Interdisciplinary Biotechnology Unit, Aligarh Muslim University, Aligarh, November 5 - 7, 2019.
- ❖ Delivered talk on 'Role of Mediator in transcription regulation of gene expression' in National Conference in Recent Advances and Current Trends in Biological Sciences, M.S. College, Motihari, November 11 - 12, 2019.

Dr. Gitanjali Yadav

- ❖ Talk on Academia-Industry Interface, AGNli Vigyan Bhavan, New Delhi, May 14.
- ❖ Talk at R Trainers Bioinformatics Meeting, New Delhi, June 7.
- ❖ Cambridge Anglo-Israeli Ambassador's Roundtable on Technology in Economies, June 20
- ❖ Talk at New Phytologist 43rd Annual Symposium, New Delhi, July 2.
- ❖ SW Talk at "Workshop on Fractal Mathematics & Open Science", New Delhi, August 2.
- ❖ Talk on Scientific Social Responsibility at Workshop for Gifted Children, IHC, Delhi, Delhi University, September 3.
- ❖ Uni Panel talk in Workshop on "Training School Teachers in Biology", Delhi, September 7.
- ❖ Keynote Speaker at Inaugural 'Episteme', Kirori Mal College, University of Delhi, September 9.
- ❖ DU Trainer at Bioinformatics Workshop for College Teachers, KMC, Delhi University, September 19.
- ❖ DU Talk at Young Leader's Workshop, World Science Forum -2019, Budapest, Hungary, November 19.
- ❖ Talk at CSaP Agri Policy Fellows' RoundTable, Cambridge, London, November 25.
- ❖ Lecture on Research Day, Dept of Plant Science, University of Cambridge, London - December 9.
- ❖ Talk at Indian Embassy about International Science Collaborations, in Lisbon Portugal, December 10.
- ❖ Talk at Spatio Temporal Networks in Chlamy Biophysical CCM at TIGR2ESS Assembly, January 21.
- ❖ Talk at Research Salon, St Edmund's College, University of Cambridge, February 12.

Dr. Ashverya Laxmi

- ❖ Delivered invited lecture in Plant Development and Production Biology conference at Mendel University, Brno, Czech Republic, September 2019.
- ❖ Delivered Invited lecture in Plant Biology in National Conference on Frontiers at University of Hyderabad in February 2020.

Dr. Manoj Majee

- ❖ Delivered talk on “PROTEIN L-ISOASPARTYL METHYLTRANSFERASE (PIMT): An enzyme to stay alive” at GRC Jaisalmer, December 6 - 10, 2019.
- ❖ Delivered talk on “PROTEIN ISOASPARTYL METHYLTRANSFERASE (PIMT): a key enzyme to increase seed vigor, longevity and stress tolerance” at Ravenshaw University, Cuttack, March 1 - 3, 2020.

Dr. Naveen Chandra Bisht

- ❖ Delivered a talk entitled “Molecular basis of the evolution of methylthioalkylmalate synthase and the diversity of methionine-derived glucosinolates in Brassica crops” during National Science Day celebration at CSIR-CIMAP, Lucknow, February 28, 2020.
- ❖ Delivered lecture on title “Redesigning the 'Mustard Oil Bomb' in oilseed Brassica for quality improvement” speaker in National Conference on Frontiers in Plant Biology, 2020, Department of Plant Sciences, School of Life Sciences, University of Hyderabad, January 31 - February 1 2020.
- ❖ Delivered talk on “CRISPR-Cas9 Genome Editing in Oilseed Brassica for Quality Improvement” at NABI workshop “Genome editing mediated by CRISPR/Cas9: tools, experimental design and applications”, November 4 - 7 2019.
- ❖ Delivered a talk entitled “Genetics and Evolution of Primary and Secondary Metabolism in Plants” during the “Training for School Teachers in Advanced Biology” at the NIPGR, September 6, 2019.
- ❖ Delivered talk on “Oil quality improvement in mustard by genome editing” as invited speaker at the Genome editing workshop “CRISPR/Cas mediated genome editing: applications, tools, and experimental design” by DBT and IUSSTF, May 27 - 31, 2019.

Dr. Jagadis Gupta Kapuganti

- ❖ Delivered invited lecture in 113th Orientation Programme of UGC-Human Resource Development Centre, JNU, March 2019.
- ❖ Delivered invited talk at India EMBO symposium on Sensing Signaling in Plant Stress Response, April 2019.
- ❖ Delivered short talk at 10th Ramalingaswami Conclave at Manesar, April 2019.
- ❖ Delivered short talk on Novel role of mitochondrial alternative oxidase under hypoxia to drive energy production via phytohemoglobin-nitric oxide cycle at Plant Cell & Environment, Glasgow.

Dr. Gopaljee Jha

- ❖ Delivered talk on “Role of Type III secretion system (T3SS) in bacterial mycophagy” during 2nd Meeting on molecular microbiology (Mcube), CDFD, Hyderabad, July 10 - 12, 2019.
- ❖ Delivered talk on “Novel strategies to control fungal diseases of rice” during XIth International Conference on Biology of Yeasts and Filamentous Fungi, University of Hyderabad, November 27 - 29 2019.
- ❖ Delivered talk on “Deciphering the secret of a bacterium that eats fungi” during National Workshop on "Frontiers in Plant Biology", at IIT Guwahati, November 11 - 13, 2019.
- ❖ Delivered lecture on “Deciphering the secreta of a bacteria that eats fungi” during National Conference on 'Emerging Trends in Plant Science Research (ETPSR 2020), at Rawanshaw University, Cuttack, Odisha, March 1- 3, 2020.

Dr. Senthil-Kumar Muthappa

- ❖ Delivered talk on 'Biotechnological approaches for biotic stress tolerance' at Advanced Training Course on “Ecological and molecular approaches for Host Plant Resistance to insect pests” at Tamil Nadu Agricultural University, Coimbatore, November 5 - 25, 2019.
- ❖ Delivered talk on 'Non-host disease resistance in plants: what do we know?' at the National Workshop on New Frontiers in Biology' at IIT Guwahati, November 11 - 13, 2019.
- ❖ Delivered talk on 'Combined biotic & abiotic stresses in chickpea' at ICAR regional complex for North Eastern region, Shillong, November 11, 2019.
- ❖ Delivered talk on 'Combined stresses in plants: concept and current understanding' at “National Conference of Plant Physiology (NCP-2019), Kerala Agricultural University, Thrissur, December 19 - 21, 2019.
- ❖ Delivered talk on 'Combined stresses in plants: concept and current understanding' at 'National Conference on Identification, Convergence, Implementation & Extension of Science-Tech-Research for Sustainable Development ICISSD-2019' at Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, April 20 - 21, 2019.
- ❖ Delivered talk on 'Non-host disease resistance in plants: what do we know?' at National Conference on Frontiers in Plant Biology at University of Hyderabad, January 31 - February 01, 2020.

Dr. Saloni Mathur

- ❖ Delivered lecture on 'The Indian Initiative on Earth Biogenome Sequencing' at the G10K-VGP/EBP meeting at Rockefeller University, New York, USA, August 30, 2019.

Dr. Jitender Giri

- ❖ Delivered talk on "Cutting fertilisers use in crop production using biotechnology" at 42nd All India Botanical Conference at the University of Calicut, Kerala, November 7 2019.

- ❖ Delivered talk on “Applications of gene-editing on crop improvement” in National workshop on gene-editing at IIRR, Hyderabad, November 11, 2019.
- ❖ Delivered talk on “Improving roots for improving P-use-efficiency in rice” Keynote lecture in an annual symposium at NABI, Mohali, Punjab, November 18, 2019.
- ❖ Delivered talk on “Role of Phosphorus in our life” at Zakir Hussain College, DU Inaugural talk in life science society, October 4, 2019.
- ❖ Delivered talk on “Roots for improving the phosphate use efficiency” at division of plant biotechnology, SKAUST, Srinagar, January 14, 2020.

Dr. Swarup K. Parida

- ❖ Delivered a talk on 'Next Generation Sequencing and its Applications in Plant Sciences' at ICAR-NIPB as Centre for Advanced Faculty Training (CAFT), September 3 - 23, 2019.
- ❖ ICAR - NBPGR as a NAHEP–CAAST training programme on Plant Genetic Resources Management and Utilization from September 30 - October 11, 2019.
- ❖ ICAR-IARI, Genetics Division, as a NAHEP–CAAST training programme on Genomics Assisted Breeding for Crop Improvement from September 30 - October 12, 2019.
- ❖ Delivered talk on Division of Seed Science & Technology, ICAR-IARI, 10th National Seed Congress-2019 on Quality Seed for Farmers' Prosperity in the session Variety Identification, Maintenance and Protection” with the topic Applications of Molecular Techniques in Plant Variety Identification from October 14 to 16, 2019.
- ❖ Delivered talk on 'Applications of Molecular Techniques in Plant Variety Identification' in 10th National Seed Congress - 2019 on 'Quality Seed for Farmers Prosperity' in the session 'Variety Identification, Maintenance and Protection' at Division of Seed Science & Technology, ICAR-IARI, October 14 – 16, 2019.
- ❖ Attended 89th Annual Session of NASI at NAARM, Hyderabad, December 21 - 23, 2019.

Dr. Jyothilakshmi Vadassery

- ❖ Delivered a invited lecture at 3rd SERB school on Chemical Ecology in NCBS, Bangalore, July 22 - August 3, 2019.
- ❖ Delivered invited talk on “Molecular insights into plant defense against herbivory” at Department of Biological Sciences, Ashoka University, Sonapat, September 24, 2019.
- ❖ Delivered invited talk on “Implications of LC-MS/GC-MS in Biology' 30th National Congress of Parasitology & Global Summit on Malaria Elimination “, JNU, September 27, 2019.
- ❖ Delivered invited talk on “Role of CNGC19 in plant defense against insect herbivory” in National Conference on “Insect-Plant Biology in 21st century” at Deshbandhu College, New Delhi, November 4, 2019.
- ❖ Delivered an invited lecture on “Cyclic nucleotide-gated channels in plant defense against herbivory” at International Symposium on Cell Surface Macromolecules at IISER, Pune, February 19 2020.

- ❖ Delivered an invited lecture in Woman in Science Series on “Cyclic nucleotide gated channels in plant defense against herbivory” at CSIR-NCL, Pune, February 20, 2020.

Dr. Aashish Ranjan

- ❖ Delivered talk on “Developmental, photochemical, and biochemical attributes to efficient photosynthesis in wild rice” at National Conference on Integrative Plant Biochemistry and Biotechnology (NCIPBB 2019), ICAR-Indian Institute of Rice Research, Hyderabad, November 8, 2019.
- ❖ Delivered talk on “The wild relatives of rice: Potential genetic resources for increasing photosynthetic efficiency” at National Conference on Neglected and Underutilized Crop Species for Food, Nutrition, Energy and Environment (NUCS-FNEE-2019), NIPGR, New Delhi, August 2, 2019.
- ❖ Delivered talk on “Transcriptomic insights into the plant structure and function” at International Workshop on NGS data analysis and Ensembl resources (NGS-Ensembl), NIPGR, New Delhi, July 12, 2019.

Dr. Senjuti Sinharoy

- ❖ Delivered a talk on “A platform towards the generation of higher nitrogen-fixing chickpea for sustainable agriculture” at Molecular Intricacies of Plant Associated Microorganism MIPAM 2019 at NIPGR, 2019.
- ❖ Delivered talk on “Identification of the major genes and understanding their roles in nitrogen fixation in groundnut” in Groundnut Network Group - Asia workshop at ICRISAT Hyderabad, September 2019.

Dr. Shailesh Kumar

- ❖ Delivered invited guest lecture in 'National conference at National Centre for Cell Science (NCCS), Pune, March 25 - 26, 2019.

Dr. Ashutosh Pandey

- ❖ Delivered talk on “Regulatory network of the flavonoid biosynthesis in higher plants: unravelling the mechanism of the pathway engineering for value addition” at Department of Life Sciences, School of Sciences, GCU, Bangalore, September 20, 2019.

Dr. Vineet Gaur

- ❖ Delivered talk on “Biology of proteins and application of PAGE” at IIS University, Jaipur, February 28, 2020.

Participation in National/International Conference/Workshops

Faculty

Dr. Ramesh V. Sonti

- ❖ India-EMBO Symposium on “Sensing and Signaling in Plant Stress Response” at The Grand Hotel, Vasant Kunj, New Delhi, April 15 - 17, 2019.
- ❖ 56th Annual meeting of Guha Research Conference 2019 (GRC 2019) at Fort Rajwada, Jaisalmer, Rajasthan, December 5 - 10, 2019.

Prof. Asis Datta

- ❖ Guest in BITS Pilani - Goa, 2019 Convocation, August 11, 2019.
- ❖ Honoured Chief Guest in Inaugural function of the 3rd National Conference on Biotechnology at Sharda University, Greater Noida, November 7, 2019.
- ❖ Chair the Session at 19th All Indian Congress of Cytology and Genetics at the CSIR-Indian Institute of Chemical Biology, Kolkata December 2 - 4, 2019.

Dr. Niranjana Chakraborty

- ❖ Participated in “18th HUPO Congress 2018”, at Adelaide, Australia, September 15 - 19, 2019.
- ❖ Participated in “HPP post-Congress Day”, at Adelaide, Australia, September 24 - 25, 2019.
- ❖ Attended the “International Conference on Translational Research” at National Centre for Cell Science [NCCS], Pune, Maharashtra, November 9 - 10, 2019.
- ❖ Attended the “11th Annual meeting of Proteomic Society, India (PSI) 2019 and International Conference at Karnal, Haryana, December 1 - 3, 2019.

Dr. Subhra Chakraborty

- ❖ Participated in National Conference on “Emerging trends in plant science research (ETPSR 2020)”, Ravenshaw University, Cuttack, March 1 - 2, 2020.
- ❖ Participated in “10th Winter Institute in Global Health”, BITS, Pilani, Hyderabad, January 13 - 14, 2020.
- ❖ Participated in “107th Indian Science Congress Association Meeting”, UAS, Bengaluru, January 3 - 6, 2020.
- ❖ Participated in NASI 89th Annual Meeting, ICAR-NAARM, Hyderabad, December 21 - 23, 2019.
- ❖ Participated in Bioprocessing India Conference 2019, CSIR-CFTRI, Mysore, December 14-16, 2019.

- ❖ Participated in 11th annual meeting of PSI and International conference on Proteomics for system integrated bioomics, one health and food safety, ICAR-NDRI, Karnal, December 2 - 4, 2019.
- ❖ Participated in 5th International Conference on Translational Research: Recent Trends in Pre-translational to Translational Research, NCCS, Pune, November 9 - 10, 2019.
- ❖ Participated in Science & Technology Sensitization Programme for Women, Central University of Haryana, Haryana, November 6 - 7, 2019.
- ❖ Participated in “18th Human Proteome Organization World Congress and HPP-focused Day”, Adelaide, Australia, September 12 - 19, 2019.
- ❖ Attended DBT-TWAS conclave, Chennai, August 8 - 9, 2019.
- ❖ Attended a farewell symposium and celebration honoring the career of Dr. Hari Deo Upadhyaya, ICRISAT, Hyderabad, July 5, 2019.
- ❖ Participated in “PROVETUS PLANTAE-2019 International Conference on Exploring the Scope of Plant Genetic Resources”, Department of Botany, University of Kerala, Kerala, May 22 - 23, 2019.
- ❖ Attended the one-day workshop on “A Prime on Proteomics”, ICMR-NIRRH, Mumbai, April 23, 2019.

Dr. Alok Krishna Sinha

- ❖ Participated in Plant Stress Biology and Food Security meeting, ICGB, New Delhi, April 20, 2019.
- ❖ Organised and attended 52 Annual Guha Research Conference at Jaisalmer, Rajasthan, December 6 – 10, 2019.
- ❖ Participated in National Conference on Frontiers in Plant Biology at Department of Plant Sciences, University of Hyderabad, Hyderabad, December 31, 2019.\

Dr. Sabhyata Bhatia

- ❖ Participated in International Conference on 'Pulses as the Climate Smart Crops: Challenges and Opportunities' (ICPulse2020) at ICAR- Central Institute of Agricultural Engineering (CIAE), Bhopal, Madhya Pradesh, February 10 - 12, 2020.

Dr. Manoj Prasad

- ❖ Participated as an expert for a studio based TV programme (India Science; www.indiascience.in) on “जीन एडिटिंग: संभावनाएं और आशंकाएं” by Vigyan Prasar (VP: an autonomous organization of the DST, Govt. of India), Sadhna TV, Noida, U.P., May 31, 2019.
- ❖ Participated in 'Global Food Security and Climate Change - Some Technological Interventions' at Global Change Research Institute (CzechGlobe), Bruno, Czech Republic, July 2, 2019.

- ❖ Participated in 'Structural and functional genomic interventions in the C4 model, foxtail millet (*Setaria italica* L.) towards enabling climate resilient agriculture' at an International Conference on "Plant Transformation & Biotechnology V, Vienna, Austria, July 3, 2019.
- ❖ Participated in 'Next-Generation Sequencing for Decoding the Plant Genomes' at One-day workshop for "Training for School Teachers in Advanced Biology" at NIPGR, New Delhi September 6, 2019.
- ❖ Participated in 'The stubble struggle: Dialogue on the 'burning' issue and practical remedies' at two days farmers workshop, organized by United States-India Educational Foundation and ICAR-NIPB, NIFTEM, Sonapat, Haryana, September 28 - 29, 2019.
- ❖ Attended Indo-UK sponsored Virtual Joint Centre meeting at the Novotel Heathrow, London, December 3-5, 2019.

Dr. Jitendra K. Thakur

- ❖ Participated in International Conference on Advances and Innovations in Biotechnology for Sustainable Development (AIBioSD-2019) Department of Biotechnology, AKS University, Satna, Madhya Pradesh, April 5 - 7, 2019.
- ❖ Participated in 'Refresher Course in Life Sciences', Centre for Professional Development in Higher Education, UGC-HRDC, University of Delhi, June 29, 2019.
- ❖ Participated in National seminar on Frontiers in Biological Sciences-III, PG Department of Microbiology, St. Xavier's College, Kolkata, September 21 - 22, 2019.
- ❖ Participated in National Conference on Recent Advances and Innovations in Artificial Intelligence, Machine Learning and Deep Learning Satellite Campus Kargil, University of Kashmir, October 3 - 5, 2019.
- ❖ Participated in Conference on Current Trend in Genomics and Proteomics pertaining to Biological science, Interdisciplinary Biotechnology Unit, Aligarh Muslim University, Aligarh, November 5 - 7, 2019.
- ❖ Participated in National Conference in Recent Advances and Current Trends in Biological Sciences M.S. College, Motihari, November 11 - 12, 2019.

Dr. Gitanjali Yadav

- ❖ Organised Brainstorming Meeting on "Technologies & Innovation in Agriculture" at NIPGR, April 4, 2019.
- ❖ R Trainers Bioinformatics Meeting, June 7.
- ❖ Cambridge Anglo-Israeli Ambassador's Roundtable on Technology in Economies, June 20.
- ❖ London New Phytologist 43 rd Annual Symposium, Zurich, Switzerland, July 2 - 5.
- ❖ Zurich, SW Workshop for Gifted Children, Delhi University, September 3.
- ❖ Delhi University Workshop on "Training School Teachers in Biology", September 7.
- ❖ NIPGR Inaugural Seminar of 'Episteme', Kirori Mal College, University of Delhi, September 9.

- ❖ KMC, DU Bioinformatics Workshop for College Teachers, KMC, Delhi University, September 19.
- ❖ KMC, DU MindSpar, United Nations' SDG Projects, SVC College, Delhi University, September 24.
- ❖ SVC, DU INYAS National Frontiers of Science Meeting (NatFoS), November 6 – 8, 2019.
- ❖ Samod Bagh Young Leader's Workshop, World Science Forum - 2019, Budapest, Hungary, November 19.
- ❖ CSaP Agri Policy Fellows' Round Table, London, November 25.
- ❖ Chem Curation Conference, Online on Twitter, December 3.
- ❖ UK Research Day, Dept of Plant Science, University of Cambridge, December 9.
- ❖ Cambridge “Science and Beyond” Annual Symposium of NII Graduates, January 11.
- ❖ Delhi TIGR2ESS Workshop on “AI & Machine Learning for Biologists”, January 24.
- ❖ ICRISAT Hyderabad TIGR2ESS Assembly, January 21 - 23.
- ❖ ICRISAT Hyderabad India-UK Round Table on Crop Science Fellowships at NIPGR, January 20 - 21, 2020.
- ❖ Research Salon, St Edmund's College, University of Cambridge, February 12.

Dr. Ashverya Laxmi

- ❖ Participated in Plant Development and Production Biology conference at Mendel University, Brno, Czech Republic, September 2019.
- ❖ Participated in National Conference on Frontiers in Plant Biology at University of Hyderabad, February 2020.

Dr. Manoj Majee

- ❖ Participated in GRC 2019, Jaisalmer, December 6 - 10, 2019.
- ❖ Participated in 'National Conference on Emerging Trends in Plant Science Research' Ravenshaw University, Cuttack, March 1 - 3, 2020.

Dr. Jagadis Gupta Kapuganti

- ❖ Invited lecture in 113th Orientation Programme of UGC-Human Resource Development Centre, Jawaharlal Nehru University on March 2019.
- ❖ Invited talk at India EMBO symposium on Sensing Signaling in Plant Stress Response, April 2019.
- ❖ Short talk at 10th Ramalingaswami Conclave at Manesar, April 2019.
- ❖ Short talk on Novel role of mitochondrial alternative oxidase under hypoxia to drive energy production via phytohemoglobin-nitric oxide cycle at Plant Cell & Environment, Glasgow.

Dr. Gopaljee Jha

- ❖ Participated in 2nd Meeting on Molecular Microbiology (Mcube) at CDFD, Hyderabad, July 10 - 12, 2019.
- ❖ Participated in XIth International Conference on Biology of Yeasts and Filamentous Fungi at University of Hyderabad, November 27 - 29, 2019.
- ❖ Participated in NCR cluster seminar series held at different cluster Institutes.
- ❖ Participated in National Workshop on "Frontiers in Plant Biology" at IIT Guwahati, November 11 – 13, 2019.
- ❖ Participated in National Conference on 'Emerging Trends in Plant Science Research (ETPSR 2020)' at Rawanshaw University, Cuttack, Odisha, March 1 – 3, 2020.

Dr. Senthil-Kumar Muthappa

- ❖ Participated in India - EMBO Symposium on 'Sensing and signalling in plant stress response' at New Delhi, April 15 – 17, 2019.
- ❖ Participated in Global BioIndia 2019 conference organized at New Delhi, November 21 - 23, 2019.
- ❖ Participated in conference 'Seed world 2019' at Bangalore, September 18 - 21, 2019.
- ❖ Participated in 5th International conference on plant genetics and genomics on 'Germplasm to genome engineering' at New Delhi, October 17 – 18, 2019.
- ❖ Participated in 107th Indian Science Congress held at University of Agricultural Sciences Bangalore, January 3 - 7, 2020.
- ❖ Participated in NCR cluster seminar series at various Institutes.

Dr. Saloni Mathur

- ❖ Participated in "India-EMBO Symposium", at New Delhi, April 15 - 17, 2019.
- ❖ Attended 'The G10K-VGP/EBP Meeting', at Rockefeller University, New York, USA, August 30, 2019.
- ❖ Participated in International Summit on Women in STEM - Visualizing the Future: New Skylines, at New Delhi, India, January 23 - 24, 2020.

Dr. Jyothilakshmi Vadassery

- ❖ Participated in International meeting on Regulatory Oxylipins, at University of Ghent, Belgium, April 1 - 4, 2019.
- ❖ Participated in EMBO Global Investigator Network selection meeting at EMBL in Heidelberg, Germany, November 12, 2019.
- ❖ Participated in 3rd SERB school on Chemical Ecology at NCBS, Bangalore July 22 - August 3, 2019.

- ❖ Delivered a Talk on “Molecular insights into plant defense against herbivory” at Department of Biological Sciences, Ashoka University, Sonapat on September 24, 2019.
- ❖ Participated in 30th National Congress of Parasitology & Global Summit on Malaria Elimination, JNU, September 9, 2019.
- ❖ Invited as judge for the research poster presentations for Programme Advisory Meeting (PAC) of RCB on September 23, 2019 at RCB, Faridabad and evaluated student posters
- ❖ Participated in National Conference on “Insect-Plant Biology in 21st century” at Deshbandhu College, New Delhi, November 4, 2019.
- ❖ Participated in International Conference on Calcium Signalling at RCB, Faridabad, February 1, 2020.
- ❖ Participated in International Symposium on Cell Surface Macromolecules at IISER Pune February 19, 2020.

Dr. Aashish Ranjan

- ❖ Participated in Gobal Bio - India 2019, New Delhi, November 21 - 23, 2019.
- ❖ Participated in National Conference on Integrative Plant Biochemistry and Biotechnology, ICAR-Indian Institute of Rice Research, Hyderabad, November 8 - 9, 2019.
- ❖ Participated in 1st National Conference on Neglected and Underutilized Crop Species for Food, Nutrition, Energy and Environment, NIPGR, New Delhi, August 2, 2019.
- ❖ Participated in Regional Young Investigator Meeting, at NIPGR, New Delhi, August 6 - 7, 2019.

Dr. Senjuti Sinharoy

- ❖ Participated in 21st International Conference on Nitrogen Fixation (ICNF 2019) Wuhan, China, 2019.
- ❖ Participated in 'Molecular Intricacies of Plant Associated Microorganism MIPAM - 2019' at NIPGR, New Delhi, 2019.
- ❖ Participated in 'Network Group - Asia workshop' at ICRISAT, Hyderabad, September 2019.
- ❖ Selected and participated in India - EMBO Symposium on Sensing and signalling in plant stress response 2019.

Dr. Amar Pal Singh

- ❖ Attended National Conference on Plant Physiology, Kerala, India, December 19 - 21, 2019.
- ❖ Attended Global Bio-India meeting 2019 at Aerocity New Delhi, India, November 21 -23, 2019.

Dr. Amarjeet Singh

- ❖ Participated in National Conference of Plant Physiology - 2019 at Kerala Agriculture University, Thrissur, Kerala, December 19 - 21, 2019.

Dr. Shailesh Kumar

- ❖ Organized One day International Symposium on Recent trends in Bioinformatics and Big data analysis at NIPGR, New Delhi, November 8, 2019.
- ❖ Organized International Workshop on NGS data analysis and Ensembl resources (NGS-Ensembl) at NIPGR, New Delhi, July 9 - 12, 2019.
- ❖ Organized Two days national workshop on 'Data curation and Database development' at NIPGR, New Delhi, December 11 - 12, 2018.

Dr. Vineet Gaur

- ❖ Participated in Workshop: Application in crystallography and drug discovery at AIIMS, New Delhi, India, November 11 - 12, 2019.
- ❖ Participated in ESRF: An opportunity for Indian Science at RCB, Faridabad, India, June 14, 2019.

Students

Dr. Arunima Sinha (Dr. Subhra Chakraborty)

- ❖ Attended and presented poster at 18th Human Proteome Organization World Congress - HUPO 2019, Adelaide, Australia, September 15 – 18, 2019.

Dr. Kanika Narula (Dr. Subhra Chakraborty)

- ❖ Attended and presented poster at 18th Human Proteome Organization World Congress - HUPO 2019, Adelaide, Australia, September 15 – 18, 2019
- ❖ Participated and presented poster at THE GLOBAL BIO-INDIA 2019, Aerocity, New Delhi, November 21 – 23, 2019.

Dr. Sayanti Kundu (Dr. Subhra Chakraborty)

- ❖ Attended “11th annual meeting of proteomics society, India, 2019 and International conference on proteomics for system integrated Bio-Omics, one health and food safety” at ICAR-NDRI, Karnal, Haryana, December 2 – 4, 2019.

Ms. Archana Sharma (Dr. Subhra Chakraborty)

- ❖ Attended and presented poster at “11th annual meeting of proteomics society, India, 2019 and International conference on proteomics for system integrated Bio-Omics, one health and food safety” at ICAR-NDRI, Karnal, Haryana, December 2 – 4, 2019.

Ms. Latika Bholra (Dr. Subhra Chakraborty)

- ❖ Attended and presented poster at “11th annual meeting of proteomics society, India, 2019 and International conference on proteomics for system integrated Bio-Omics, one health and food safety” at ICAR-NDRI, Karnal, Haryana, December 2 – 4, 2019.

Mr. Yaseer Arafat (Dr. Subhra Chakraborty)

- ❖ Attended and presented poster at “11th annual meeting of proteomics society, India, 2019 and International conference on proteomics for system integrated Bio-Omics, one health and food safety” at ICAR-NDRI, Karnal, Haryana, December 2 – 4, 2019.

Ms. Atreyee Sengupta (Dr. Subhra Chakraborty)

- ❖ Attended “11th annual meeting of proteomics society, India, 2019 and International conference on proteomics for system integrated Bio-Omics, one health and food safety” at ICAR-NDRI, Karnal, Haryana, December 2 – 4, 2019.

Dr. Pragya Barua (Dr. Niranjana Chakraborty)

- ❖ Attended and presented poster at 18th Human Proteome Organization World Congress - HUPO 2019, Adelaide, Australia, September 15 – 18, 2019.

Dr. Divya Rathi (Dr. Niranjana Chakraborty)

- ❖ Attended and presented poster at 18th Human Proteome Organization World Congress - HUPO 2019, Adelaide, Australia, September 15 – 18, 2019.

Mr. Sunil Kumar (Dr. Niranjana Chakraborty)

- ❖ Attended and presented poster at “11th annual meeting of proteomics society, India, 2019 and International conference on proteomics for system integrated Bio-Omics, one health and food safety” at ICAR-NDRI, Karnal, Haryana, December 2 – 4, 2019.

Dr. Subhendu Shekhar (Dr. Niranjana Chakraborty)

- ❖ Attended and presented poster at “11th annual meeting of proteomics society, India, 2019 and International conference on proteomics for system integrated Bio-Omics, one health and food safety” at ICAR-NDRI, Karnal, Haryana, December 2 – 4, 2019.

Ms. Akanksha Pareek (Dr. Niranjana Chakraborty)

- ❖ Attended and presented poster at international conference on “Plants in a Changing World- Integration of Photosynthesis, Adaptation and Development” at Helsinki, Finland, November 6 – 8, 2019.

Dr. Shikha Rani - NPDF (Dr. Saloni Mathur)

- ❖ Flash talk delivered on the topic “Systematic identification and curation of Long non-coding RNAs from *Solanum lycopersicum* leaf during heat stress” in National Symposium on Database Development and Biocuration 2019 (NSDDB-2019) at University of Delhi, South Campus, New Delhi, December 17, 2019.

Ms. Chandani Bansal, Mr. Sombir Rao and Dr. Saloni Mathur (Dr. Saloni Mathur)

- ❖ Participated in '4th Edition of Global Conference on Plant Science and Molecular Biology (GPMB-19)', and presented poster entitled, 'Unraveling the role of miRNAs in combined heat and drought stress in tomato, London, U.K., September 19 - 21, 2019.

Mr. Sombir Rao, Ms. Chandni Bansal and Dr. Saloni Mathur (Dr. Saloni Mathur)

- ❖ Participated in India EMBO symposium "Sensing and signalling in plant stress response" and presented a poster entitled “An HSF:miR169 regulatory node governs heat stress tolerance and vegetative development in Arabidopsis”, EMBO, India Alliance-DBT Wellcome trust, JNU, NIPGR and ICGEB, New Delhi, April 15 - 17, 2019.

Dr. Balasubhramaniam (Dr. Jyothilakshmi Vadassery)

- ❖ Presented a poster entitled “Towards structure determination of Cyclic Nucleotide Gated Channel 19 (CNGC19) from *Arabidopsis thaliana*” at NCR-cluster Young Investigators Symposium, Regional Centre for Biotechnology, Faridabad, Haryana, October 4, 2019.

Mr. Vinod Prajapati (Dr. Jyothilakshmi Vadassery)

- ❖ Delivered talk on “Identification of effector proteins from generalist herbivore, *Spodoptera litura* and finding their targets in plants” in IPPC2019, at ICRISAT Hyderabad, November 10 - 14, 2019.

Mr. Ramgopal Prajapati (Dr. Jyothilakshmi Vadassery)

- ❖ Presented a poster on “Role of cyclic nucleotide gated channel 13 (CNGC13) in plant defense against insect herbivory” at Third DST-SERB School on Chemical Ecology, NCBS, Bangalore, July 22 - August 4, 2019.

Ms. Deepika Mittal (Dr. Jyothilakshmi Vadassery)

- ❖ Presented a poster entitled "Identifying novel players in calcium dependent JA signaling" at India EMBO Symposium 2019 (Sensing and signalling in plant stress response), New Delhi, April 15 - 17, 2019.

Mr. Jogindra Naik, Ms. Ruchika, Dr. Ashutosh Pandey (Dr. Ashutosh Pandey)

- ❖ Molecular Mechanism of Flavonol Biosynthesis in *Musa acuminata*: Towards Development of Flavonol Enriched Banana, in National Conference of Plant Physiology (NCP-2019), by Department of Plant Physiology, Kerala Agricultural University, Thrissur, December 19 - 21, 2019.

Mr. Jogindra Naik, Ms. Ruchika, Dr. Ashutosh Pandey (Dr. Ashutosh Pandey)

- ❖ Unravelling the molecular mechanism of regulatory proteins involved in Anthocyanin biosynthesis in Banana (*Musa acuminata*), in International Conference on Applied Biology by School of Biotechnology, Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir, November 4 - 6, 2019.

Mr. Bikash Raul (Dr. Senjuti Sinharoy)

- ❖ Participated in ICRISAT Germplasm Field Day, ICRISAT, Hyderabad, October 25, 2019.
- ❖ Participated in DNA Sequencing Technology & Droplet Digital PCR, RCB, Faridabad, August 7 - 8, 2019.
- ❖ Participated in Global Bio-India 2019, Exhibition Ground, Aerocity, Opp. to Aero City Metro Station, New Delhi, November 21 - 23, 2019.
- ❖ Participated in In-house workshop and training on Metabolomics (LC-MS and GC-MS), NIPGR, New Delhi, November 25 - 26, 2019.

Ms. Oiendril Bhattacharjee (Dr. Senjuti Sinharoy)

- ❖ Participated in DNA Sequencing Technology & Droplet Digital PCR, RCB, Faridabad, August 7 - 8, 2019.

Ms. Harshita Bharti Saksena (Dr. Ashverya Laxmi)

- ❖ Participated and presented a poster in "Plant Hormones and Other Growth Regulators and Plant Abiotic Stress Tolerance VI" at Vienna International Science Conference and Events Association (VISCEA), Vienna, Austria, February 17 - 22, 2020.

Mr. Roshan Kumar Singh (Dr. Manoj Prasad)

- ❖ Participated in International Conference on 'Advances and Innovations in Biotechnology for Sustainable Development', Madhya Pradesh, April 5 - 7, 2019.
- ❖ Participated in Global Bio-India 2019, New Delhi, November 21 - 23, 2019.

Ms. Bhanu Malhotra (Dr. Naveen C. Bisht)

- ❖ Participated in "NGS Data Analysis and Ensemble Resources (NGS-Ensemble)" at National Institute of Plant Genome Research, New Delhi, July 9 - 12, 2019.

- ❖ Participated in "NUCSFNEE 2019 Conference", at National Institute of Plant Genome Research, New Delhi, August 02, 2019.

Ms. Anshika Pandey (Dr. Amar Pal Singh)

- ❖ Participated in "National Conference of Plant Physiology (NCP 2019)", Kerala Agriculture University, Thrissur, Kerala, December 19 - 21, 2019.

Ms. Poonam Panchal (Dr. Jitender Giri)

- ❖ Participated in Newton-Bhabha PhD placement program, John Innes Centre, Norwich, UK, April, 16 - July, 15, 2019.
- ❖ Participated in "National Conference of Plant Physiology (NCP 2019)", Kerala Agricultural University, Thrissur, Kerala, December, 19 - 21, 2019.

Ms. Deepika (Dr. Amarjeet Singh)

- ❖ Participated in 'Genome Editing mediated by CRISPR/Cas9: tools, experimental design and applications', at National Agri-Food Biotechnology Institute (NABI), Mohali, November 1 - 4, 2019.

Ms. Shraboni Ghosh (Dr. Manoj Majee)

- ❖ Participated in Plant Biology - 2019, San Jose, California, August 3 - 7, 2019.

Ms. Aakanksha Wany (Dr. Jagadis Gupta Kapuganti)

- ❖ Participated in India EMBO symposium "Sensing and signalling in plant stress response" organized by EMBO, India Alliance-DBT Wellcome trust, JNU, NIPGR and ICGEB, New Delhi, April 15 - 17, 2019.

Ms. Aprajita Kumari (Dr. Jagadis Gupta Kapuganti)

- ❖ Participated in India EMBO symposium "Sensing and signalling in plant stress response" organized by EMBO, India Alliance-DBT Wellcome trust, JNU, NIPGR and ICGEB, New Delhi, April 15 - 17, 2019.
- ❖ Participated in International Conference on Photobiology, Phytochemistry and Plant Biotechnology, Udaipur, May 8 - 9, 2019.

Mr. Pradeep Kumar Pathak (Dr. Jagadis Gupta Kapuganti)

- ❖ Participated in India EMBO symposium "Sensing and signalling in plant stress response" organized by EMBO, India Alliance-DBT Wellcome trust, JNU, NIPGR and ICGEB, New Delhi, April 15 - 17, 2019.

Ms. Pooja Singh (Dr. Jagadis Gupta Kapuganti)

- ❖ Participated in India EMBO symposium "Sensing and signalling in plant stress response" organized by EMBO, India Alliance-DBT Wellcome trust, JNU, NIPGR and ICGEB, New Delhi, April 15 - 17, 2019.

Ms. Namrata Singh (Dr. Jagadis Gupta Kapuganti)

- ❖ Participated in India EMBO symposium "Sensing and signalling in plant stress response" organized by EMBO, India Alliance-DBT Wellcome trust, JNU, NIPGR and ICGEB, New Delhi, April 15 - 17, 2019.

Ms. Stanzin Noryang (Dr. Alok Krishna Sinha)

- ❖ Participated in 30th International Conference on Arabidopsis Research (ICAR 2019), Eurasia Convention International Hotel, Wuhan, China, June 16 - 21, 2019.

Ms. Mahima (Dr. Ananda K. Sarkar)

- ❖ Participated in XLIII All India Cell Biology Conference, IISER, Mohali, December 19 - 21, 2019.

Dr. Saikat Paul (Dr. Ananda K. Sarkar)

- ❖ Participated in "International Workshop on NGS data analysis and Ensembl resources (NGS-Ensembl)", NIPGR, New Delhi, July 9 - 12, 2019.
- ❖ Participated in "In-House training workshop for LC-MS and GC-MS", NIPGR, New Delhi, November 25 - 29, 2019.

Dr. Ashutosh Kumar (Dr. Ananda K. Sarkar)

- ❖ Participated in India EMBO symposium "Sensing and signalling in plant stress response" organized by EMBO, India Alliance-DBT Wellcome trust, JNU, NIPGR and ICGEB, New Delhi, April 15 - 17, 2019.

Ms. Sumaira Tayyeba (Dr. Alok Krishna Sinha)

- ❖ Participated in India EMBO symposium "Sensing and signalling in plant stress response" organized by EMBO, India Alliance-DBT Wellcome trust, JNU, NIPGR and ICGEB, New Delhi, April 15 - 17, 2019.

Ms. Sarvesh Jonwal and Mr. Dhanraj Singh (Dr. Alok Krishna Sinha)

- ❖ Participated in NAHEP-CAAST sponsored training on "Genome Editing of Crops: Methods and Applications" jointly organised by ICAR-National Institute of Plant Biotechnology and Division of Plant Physiology and Division of Plant Pathology, ICAR-Indian Agriculture Research Institute, New Delhi, December 27, 2019 - January 8, 2020.

Mr. Ashish Prasad (Dr. Manoj Prasad)

- ❖ Participated in Protein Production and Purification Workshop, Regional Center for Biotechnology, Faridabad, July 2 - 4, 2019.
- ❖ Participated in Global Bio-India 2019, New Delhi, November 21 - 23, 2019.
- ❖ Participated in International Conference of Virology (VIROCON 2020), Indian Virological Society, New Delhi, February 18 - 20, 2020.

Dr. Namisha Sharma (Dr. Manoj Prasad)

- ❖ Participated in Global Bio-India 2019, New Delhi, November 21 - 23, 2019.
- ❖ Participated in International Conference of Virology (VIROCON 2020), Indian Virological Society, New Delhi, February 18 - 20, 2020.

Ms. Shambhavi (Dr. Manoj Prasad)

- ❖ Participated in International Conference of Virology (VIROCON 2020), Indian Virological Society, New Delhi, February 18 - 20, 2020.

Mr. Saurabh Pandey (Dr. Manoj Prasad)

- ❖ Participated in International Conference of Virology (VIROCON 2020), Indian Virological Society, New Delhi, February 18 - 20, 2020.

Study Tours at the Institute

The students from the following Universities/Colleges/School(s) visited NIPGR to familiarize themselves with the frontier research being carried out at NIPGR and interacted with the faculty.

- ❖ Mar Athanasios College for Advanced Studies Tiruvalla (MACFAST) on April 10, 2019.
- ❖ K. R Mangalam World School, Gurugram, Haryana on April 24, 2019.
- ❖ Tagore International School, Vasant Vihar, New Delhi on May 06, 2019.
- ❖ Shaheed Rajguru College of Applied Sciences for Women on August 9, 2019.
- ❖ Modern School, Vasant Vihar, New Delhi on August 29, 2019.
- ❖ Modern School, Vasant Vihar, New Delhi on August 30, 2019.
- ❖ Institute of Home Economics, University of Delhi on September 20, 2019.
- ❖ DBT-AAU Centre, Assam Agricultural University, Jorhat on September 26, 2019.
- ❖ M.P. Mission Excellence, Madhya Pradesh on October 16, 2019.
- ❖ CMS College, Kottayam on November 26, 2019.
- ❖ Department of Plant Molecular Biology and Bioinformatics, Tamil Nadu Agricultural University, Coimbatore on December 17, 2019.
- ❖ Dept. of Botany, Ravenshaw University on December 19, 2019.
- ❖ Mar Athanasios College for Advanced Studies Tiruvalla (MACFAST) on March 09, 2020.

Symposia/Workshop/ Special Lectures/Events Organized

Brainstorming discussion meeting in diverse areas of Technologies in Agriculture (April 04, 2019)

NIPGR coordinated a brainstorming discussion meeting of experts in diverse areas of Technologies in Agriculture, at NIPGR on April 04, 2019. Over 20 representatives from academia, government, public and private sectors came together to explore scalability of emerging technologies like CRISPR, Transgenics, Phenomics, Artificial Intelligence, Robotics and Block-chains for the future of Indian Agriculture, specially with focus on small holder farmers. The focus of meeting was towards development of a National Action plan for Sustainable Agriculture, prioritised by office of the Principal Scientific Adviser (PSA) to Government of India.

DBT NCR Cluster Seminar Series', seminar on 'Genomic tools and applications in modern biology' (April 12, 2019)

NIPGR has organized a seminar on 'Genomic tools and applications in modern biology' on April 12, 2019 under 'DBT NCR Cluster Seminar Series'. More than 300 faculty members, students and researchers from multiple cluster institutes as well as other institutes/universities of the NCR-region participated in the seminar.

India EMBO Symposium: Sensing and signalling in plant stress response (April 15 - 17, 2019)

NIPGR in collaboration with JNU, New Delhi, ICGEB, New Delhi and University of Leeds, UK has organized the India|EMBO Symposium on the topic "Sensing and signalling in plant stress response" at New Delhi. The inaugural function was graded by Prof. M. Jagadesh Kumar, Distinguished Professor and Vice-Chancellor, Jawaharlal Nehru University, as the Guest of Honor. He mentioned that integration of science with technology is the need of the hour to combat the effects of global climate change. He recalled the increasing pollution levels which are severely affecting the atmosphere leading to that climatic vagaries such as drought, salinity and flooding.



In addition, Guest of Honor and Director, International Centre for Genetic Engineering and Biotechnology, Prof. Dinakar M. Salunke, mentioned that besides medical advancements, ICGEB is also leading in the field of Agricultural Biotechnology and emphasized that solutions to climatic changes could be resolved by advanced biotechnological interventions. Further, Guest of Honor and Director, National Institute of Plant Genome Research, Dr. Ramesh V. Sonti, said that Indian scientists are now working hard to develop climate resilient and climate smart varieties, and other biotic and abiotic tolerant varieties that are capable of addressing farmers' problems and consumers' demands besides alleviating hunger, malnutrition and poverty. Later, Prof. Julia Bailey-Serres delivered the inaugural lecture on the topic "Plasticity of response to water extremes". The symposium was attended by over 150 delegates from India and abroad including USA, UK, France, Philippines, Netherlands, Australia, Switzerland and Bangladesh. In this symposium, a publishing workshop was organized and a panel discussion was conducted on food security, besides talks were delivered by various international speakers and flash/lightning talks/poster presentations by young researchers.

Swachhta Pakhwada (May 01 - 15, 2019)

Swachhta Pakhwada has been observed in the Institute from 1st to 15th May. The pledge taking ceremony was held on May 02, 2019 in which the staff members, students and researchers participated. Cleanliness drive led by senior officers & scientists of the Institute was carried out on May 11, 2019. 'Swachhta Pakhwada Awards' in various categories like Best Laboratory, Best Sitting Space and Best Common Facility were awarded on completion of Pakhwada. The whole idea of this exercise was to bring about mass awareness and lasting behavioural change about cleanliness and to ensure an improved work culture and work environment including hygiene and cleanliness of the work place.

Hindi workshop on "राजभाषा संबंधी निर्देश, हिंदी टंकण (टाइपिंग), अनुवाद कार्य" (June 19, 2019)

In pursuance of Official Language Act / Rules of the Government of India, the use of Hindi Language in the official functioning of the Institute is being progressively strengthened. Towards this, a



workshop on “राजभाषा संबंधी निर्देश, हिंदी टंकण (टाइपिंग), अनुवाद कार्य” was organized on June 19, 2019 in the Institute. The staff members and the students/researchers of the Institute enthusiastically participated in the said Workshop.

International Day of Yoga (June 21, 2019)

To commemorate 5th International Yoga Day on June 21, 2019 a seminar on 'करें योग भगाएं रोग' and 'Yogabhyas based on Common Yoga Protocol (CYP), were organized. The staff members & researchers along with their family members especially children have attended the event enthusiastically. The objective of this exercise is not just a one-day celebration but it aims to make all participants aware of the immense rewards that the pursuit of Yoga can bring to the individual and thereby inspire them to continue the practice of Yoga beyond Yoga Day. Yoga is an invaluable gift of India's ancient tradition. It is not about exercise but to discover the sense of oneness with yourself, the world and the nature. By making Yoga an integral part of our lifestyle, a healthy life can be attained both physically and emotionally. This has been an effort to inspire all members of NIPGR community to continue the practice of Yoga, beyond Yoga Day.



International Workshop on NGS data analysis and Ensembl resources (NGS-Ensembl) (July 9 - 12, 2019)

The Sub-DIC facility at NIPGR organised the international workshop entitled “International Workshop on Next Generation Sequencing (NGS) data analysis and Ensembl resources (NGS-Ensembl)” with the collaboration with Ensembl team, UK. This workshop offered short courses useful for understanding the developments in different aspects of Bioinformatics. This workshop also provided exposure and hands on intensive training in systems Biology, Bioinformatics applications in agriculture, genomics and proteomics. This workshop was divided into two components, 1) Ensembl Component: Ensembl Browser and REST API workshop (Link for Details); and 2) NIPGR Component: Next Generation Sequencing (NGS) data analysis, Basic Linux, Perl, R and database development. Dr. Ramesh Sonti, Director, NIPGR inaugurated the workshop, and Drs. Shailesh Kumar and Jitendra K Thakur, Scientist, NIPGR moderate the event. Dr. Astrid Gall, trainer, EMBL-EBI, visited India and provided the hands-on training to 30 participants for three days.



First National Conference on Neglected and Underutilized Crop Species for Food, Nutrition, Energy and Environment (NUCS-FNEE-2019) (August 02, 2019)

The first National Conference on “Neglected and Underutilized Crop Species for Food, Nutrition, Energy and Environment” was organized at NIPGR, New Delhi on August 2, 2019. The Conference was inaugurated by Dr. Trilochan Mohapatra, Secretary - DARE and DG - ICAR, and Dr. Renu Swarup, Secretary - DBT. The Conference brought together the leading academic scientists, researchers and research scholars working on underutilized crops to exchange and share their research outcomes on a common platform. The Conference also provided an interdisciplinary platform for researchers, industry members and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered, and solutions adopted while working on orphan crop species. The event has been attended by around 255 participants from 25 different States.



Regional Young Investigators meeting (R-YIM 2019) (August 06-07, 2019)

India Bioscience has been organizing Young Investigators' Meetings (YIM) over the past 11 years to enable and provide a platform for intellectual exchange among young scientists across different scientific disciplines. In order to allow more such interactions to happen at a local level, Regional Young Investigator meetings were initiated in 2018. The current meeting was held in National Institute of Plant Genome Research, New Delhi on 6th and 7th August 2019. This event was inaugurated by Prof. K. VijayRaghavan, Principal scientific advisor to Govt. of India and Prof. Sandeep Verma, Secretary SERB. Prof. K. Vijay Raghavan delivered the keynote address on The Scientific Enterprise in India, Successes, Challenges and The Way Forward. Dr. Shekhar C. Mande, Director General, CSIR delivered a talk on CSIR in the service of the nation about CSIR origins, important milestones and future plans of CSIR in capacity building and nurturing young faculty for new inventions. This meeting was attended by prominent scientists and Directors of NII, RCB, ICGEB, IGIB, Welcome DBT, IndiaAlliance, several science communicators and 130 faculty members from various Institutes and agencies such as Indo German office, Incubators, Facilities etc.



Hindi Pakhwara (September 1-14, 2019)

Hindi Pakhwara was observed during September 01-14, 2019 in the Institute. All the members of the staff, students and researchers were requested to do maximum work in Hindi during this period. The staff members were encouraged to use Hindi in the deliberations of the meetings, seminars, etc., organized during this period, to work in Hindi on computers and to opt for forms in Hindi which are used for various purposes in the Institute, besides all other official works.

In addition to above, Nibandh Pratiyogita, Shrutlekh Partiyogita and Sulekh Partiyogita were organized to commemorate 'Hindi Diwas' on September 13, 2019. Members of NIPGR community participated enthusiastically in the events. The best two entries in these events were selected and conferred prizes and certificates on the occasion of Foundation Day of the Institute.

Annual Student Research Symposium – SciEfflux (September 4 – 5, 2019)

The eleventh Student Research Symposia (SciEfflux – 2019) was organized during September 4 - 5, 2019. On this occasion, 2nd and 4th year students of the Institute made presentations related to theme and progress of their research work. The award for best presentation each by the 2nd and 4th year students, namely “Best Scientific Presentation Award” has been conferred which contains a medal and a certificate. In addition to this, few other activities/competitions and cultural programme have been organized during the symposia. The faculty members, students and researchers of the Institute participated in the deliberations of the symposia.



Inauguration of Annual Student Research Symposium – SciEfflux-2019
(R-L Dr. Ramesh V. Sonti, Dr. Ashish Ranjan, Mr. Vishal Varshney, Mr. Sanjay, Ms. Jaishri Rubina Das, Ms. Amrita Pradhan, Ms. Samiksha Saxena)



Students performing in the cultural event “RAINBOW”

Training Programme for School teachers (September 6, 2019)

One-day training programme for school teachers in Advanced Biology has been organized during September 06, 2019. The school teachers from thirty schools from inside and outside NCR attended the programme. The aim of this training was to apprise teachers about the new developments in the field of biological sciences. This included scientific talks by the Faculty of the Institute, visits to various laboratories/facilities, interactions with the scientists etc.



Swachhta Hi Seva (SHS) 2019 (September 11, 2019 – October 27, 2019)

The Swachhta Hi Seva (SHS) 2019 has been observed during September 11 - October 27, 2019 in the Institute. This campaign includes spreading the message of cleanliness and awareness among all the members of NIPGR, creating awareness on the access to safe sanitation, triggering behaviour change on cleanliness and shramdaan at public places. Special emphasis has been laid for triggering action towards plastic waste management and effective ban of Single Use Plastic (SUP). The members of NIPGR community have participated in this campaign enthusiastically. The canteen and Amul kiosk running at NIPGR Campus have prohibited the use of Single Use Plastic, which are generally used for carrying goods. Further, Institute has prohibited the use of Single Use Plastic in its Campus. Towards this use of pet water bottles, plastic glasses, plastic folders, trays etc. have been discontinued in day to day official activities including meetings, workshops, conference, etc.

Hindi workshop on “हिंदी टंकण (टाइपिंग)” (September 27, 2019)

In pursuance of Official Language Act / Rules of the Government of India, the use of Hindi Language in the official functioning of the Institute is being progressively strengthened. Towards this, a workshop on “हिंदी टंकण (टाइपिंग)” was organized on September 27, 2019 at the Institute. The staff members of the Institute enthusiastically participated in the said Workshop.

Bal Nibandh Pratiyogita (October 19, 2019)

An Essay Competition was organized on October 19, 2019 for the children of staff members for promotion of Hindi language in the Institute. The Essay Competition was organized for children belonging to class 5 to 7 and class 8 to 10. The children of staff members participated enthusiastically. The best two entries of both the above categories were awarded with a Memento and a Certificate on the occasion of the Foundation Day of the Institute.

Open Day/Public Outreach Day (October 23, 2019)

With a view to popularize science and showcase the various facets of research and development to young innovators, students, teachers and individuals interested in the field of plant sciences, the institute has organised an Open Day/Public Outreach Day, a precursor of IISF 2019, on October 23, 2019. In this event, more than one thousand students from different schools and colleges encompassing both government & private participated along with their teachers. In this event,



posters and exhibits on various aspects of plant science have been presented. To give students the real laboratory experiences a demo lab has been set up to show them the basic molecular biology experiments. The aim of this event was to stimulate the brains of young knowledge seekers to develop an interest in science in general and plant science in particular as their mainstream career.

Vigilance Awareness Week (October 28, 2019 - November 02, 2019)

The 'Vigilance Awareness Week' was observed by NIPGR during October, 28 - November 02, 2019 with the theme 'Integrity-A way of life'. An Integrity Pledge was organized on October 28, 2019, to create awareness, against corruption and refraining from indulging in dishonest and unethical activities, in which staff members/students/researchers of the Institute participated. To sensitize against corruption and other unethical activities, an essay completion on vigilance related matters has been conducted on November 01, 2019 in the Institute. All members of NIPGR were sensitized to promote integrity, transparency and accountability in their public life, by circulating the CVC instructions and displaying banners etc. The officials of NIPGR were motivated to follow the anti-corruption practices in their official procedures.



India International Science Festival (IISF) 2019 (November 5 – 8, 2019)

NIPGR scientists, students and staff participated and showcased achievements/products of the Institute in the India International Science Festival (IISF) 2019 held at Kolkata during November 5-8, 2019. The aim is to popularize the science and showcase research & developments to young innovators, teachers, students and individuals working in the field of science.



A larger number of young students from various schools, colleges, universities and Institutes visited NIPGR stall and were exposed to various cutting-edge research being conducted at NIPGR. Beside this, several dignitaries as CSIR-DG, Directors of several DBT Institutes, Shri. Kailash Vijayvargiya (Hon'ble M.P) and many others also visited the NIPGR stall and appreciated the research being carried out at NIPGR.

National Frontiers of Science (NatFoS) Meeting 2019 (November 6 – 8, 2019)

NIPGR in association with INYAS and Office of Principal Scientific Advisor (PSA), Government of India, organized National Frontiers of Science (NatFoS) Meeting 2019 at Jaipur (Raj.) during November 06-08, 2019. The aim of these brainstorming sessions was to explore themes of Extreme environments on Earth, Material Science, Climate resilience, Chemistry of Matter, Behavioural Ecology, Artificial Intelligence and Neural Networks.



International Symposium on "Recent trends in Bioinformatics and Big data analysis" (November 8, 2019)

One day International Symposium on "Recent trends in Bioinformatics and Big data analysis" has been organized on November 08, 2019 by the Sub-DIC Facility of NIPGR. The symposium has been specially designed for the young researchers, faculty, and professionals working in the area of bioinformatics, genomics, machine learning, and big data analysis.



Global Bio-India 2019 (November 21 – 23, 2019)

The Department of Biotechnology, Ministry of Science & Technology, Government of India along with Biotechnology Industry Research Assistance Council (BIRAC) has organized the Global Bio-India 2019, one of the largest biotechnology stakeholder's conglomerates. This has been held for the first time in India at New Delhi from 21st to 23rd November, 2019. The aim of this event for the biotech community is to attract investments, showcase indigenous strengths and more importantly fuel the hopes and aspirations of the indigenous talent pool. NIPGR scientists and students participated and showcased the research achievements of the Institute in this event.



Metabolomics Workshop (November 25 – 29, 2019)

To teach the users the metabolomics methods established in the facility, the Institute has arranged a five days in-house training workshop from 25th November to 29th November, 2019. This workshop



Hands-on introduction with the analytical equipment

was aimed to train the users in a) technical application training on the equipment to be used, b) hands on sample preparation for the metabolite analysis, c) hands-on introduction with the analytical equipment and d) data analysis. There were more than 100 participants for all sessions and 30 participants were given hands-on training in the facility.

Constitution Day (November 26, 2019)

The Constitution Day has been observed on November 26, 2019 in the Institute. The Preamble to the Constitution has been read out in the Board Room of the Institute with the 'Samvidhan Diwas' banner in the backdrop. The staff members / researchers / scholars of the Institute participated in the event.



Foundation Day (November 30, 2019)

The Institute celebrated its 21st Foundation Day by organizing “J. C. Bose Memorial Lecture” on November 30, 2019. On this occasion Institute has organized a public lecture on 'Connecting Academic R&D with Product Innovation: A few case studies and a way forward' by Prof. V. Ramgopal Rao, Director, Indian Institute of Technology, New Delhi.



**Prof. V. Ramgopal Rao and Dr. Ramesh V. Sonti, lighting the lamp
on 21st Foundation Day of NIPGR**

Besides, researchers / students of the Institute were facilitated with medals / mementos / certificates for the best scores in Ph.D. course work, for best presentations in Students Research Symposium 2019 and winners of the events conducted during Hindi Pakhwara. The invited guests from nearby institutions as well as staff and students of the Institute attended the function.

Meeting of the Directors of DBT Autonomous Institutions (December 4, 2019)

A meeting of the Directors of DBT Autonomous Institutions was held on December 04, 2019 at NIPGR. The Institutes' Common Issues, Thematic Cluster Programs, Common MSc-PhD program for all institutions, implementation of entrepreneurship and IP policy and general manpower issues have been discussed in the meeting. The meeting was chaired by Secretary DBT and attended by senior officers of DBT, Directors and senior scientists of the DBT Institutes.



Hindi workshop on “वाक्यांश एवं अभिवक्तियाँ” (December 18, 2019)

In pursuance of Official Language Act / Rules of the Government of India, the use of Hindi Language in the official functioning of the Institute is being progressively strengthened. Towards this, a workshop on “वाक्यांश एवं अभिवक्तियाँ” was organized on December 18, 2019 at the Institute. The staff members of the Institute enthusiastically participated in the said Workshop.

India-U.K Crop Science Round Table (January 20 – 21, 2020)

In view of the importance and focus in crop science in India, and acknowledging importance of capacity building for young investigators wishing to train in modern day essential tools for crop science research & development, the Department of Biotechnology initiated a dialogue between Indian institutions and premier U.K based research organizations, to identify priority areas in crop science. These discussions led the representatives of eight Indian and eight British research/academic organizations to meet at NIPGR for an initial roundtable on 20 th and 21 st January 2020, which in turn, culminated in the signing of a new MoU and fellowship program envisaged to provide opportunity to best and brightest Indian students and young investigators to gain exposure and access to world class research facilities in leading U.K. institutions for up to two years, towards building long-term R& D linkages and collaborations. It is envisaged that the InCrops Fellows would return to India and reinforce Indian crop science research strengths.



Public lectures on “Biodiversity of National capital Region (NCR)” to celebrate the National Science day (February 28, 2020)

NIPGR has organised Public lectures on “Biodiversity of National capital Region (NCR)” on February 28, 2020 to celebrate the National Science day. The aim of the event was to raise the awareness among the public regarding importance of biodiversity and how it can be protected. Lectures by distinguished scientists working in this area have been delivered and attended by students of school and colleges of NCR besides staff members their families/researchers of NIPGR and nearby institutions.



Other Activities at NIPGR

Launching of National Genomics and Genotyping Facility (NGGF) (May 4, 2019)

The National Genomics and Genotyping Facility (NGGF) has been launched by Dr. Renu Swarup, Secretary, Department of Biotechnology, Government of India, on 4th May, 2019 at NIPGR. The program included a symposium focussed on the challenges and opportunities of the NGGF, short talks, followed by a panel discussion. Furthermore, on this occasion, Dr. Renu Swarup also Launched DBT – Indian Biosafety Knowledge Portal and Inaugurated an Upgraded Proteomics Facility at NIPGR.



Inauguration of Advanced Inter-Institutional Proteomics Facility at NIPGR (May 4, 2019)

The Advanced Inter-Institutional Proteomics Facility of NIPGR has been inaugurated by Dr. Renu Swarup, Secretary, Department of Biotechnology, Government of India, on 4th May, 2019 at NIPGR. The facility has now been equipped with advanced state-of-the-art mass spectrometers. This facility will help and support characterization and validation of interactome proteome and discovery proteomics and verifications of biomarkers. The facility, funded by the Department of Biotechnology, Govt. of India, earlier started in 2007 with the aim to initiate, coordinate and facilitate proteomics research activities. The rejuvenated proteomic facility will be of immense help in identifying and characterizing different protein sets, proteoforms & interacting partners, large scale mapping of crop proteomes, finding the missing proteins from genome data, understanding the mechanistic details of plant processes, small molecules of agricultural and biomedical importance which in turn could be helpful in understanding the function of a gene/protein and could be translated in application related to improvement of agricultural, medicinal products along with health care products. Further, the facility would continue to generate well trained young researchers with capability to further studies in related areas from different DBT institutes, nearby Universities/Institutes and across India. Moreover, advanced training in the field will be an integrated mandate of the facility for India and neighboring countries. The scientific and technical know-how generated in the facility will be shared with the users to conduct high quality research.

The service of the facility is available to internal and external users.



Inauguration of Metabolome Facility (December 4, 2019)

The Metabolomics Facility at NIPGR has been set up as a platform for plant metabolomics with advanced and high throughput equipments and using Mass Spectrometry as the key technology for the identification and quantitative characterization of both targeted and untargeted metabolites. The state-of-the-art Metabolome Facility has been inaugurated and dedicated to the Nation, by the Secretary, DBT on December 04, 2019. The facility is equipped with the analytical instrumentation designed for both targeted and untargeted quantification and profiling of plant phytohormones and low abundant metabolites. Plant Metabolites that can be detected and quantified in the facility include- Jasmonic acid (JA), Salicylic acid (SA), Absciscic acid (ABA), cis-OPDA, Auxin, Cytokinin, All amino acids, Flavanoids, Sugars, Polyamines, phenolics, alkaloids, ionome profiling and untargeted metabolite profiling.

The facility is available for internal as well as external users.



Gene Functional Analysis Platform for Crops (GFAPC)

The National Institute of Plant genome Research works on a number of major crops including rice, chickpea, tomato and oilseed Brassica. Over the last few years, the institute has made a pioneering contribution in deciphering genomes, transcriptomes and proteome profiles of crops of interest. These studies have identified a number of candidate genes/pathways that have potential to contribute to many of the useful agronomic traits such as yield and adaptation to adverse climate. Systematic in planta functional characterization of these genes by overexpression/knockdown is necessary not only for knowing the function of the genes, but also essential for devising strategies to utilize those genes and their alleles for crop improvement through marker assisted selection/genome editing/transgenesis. The NIPGR scientists have been working on individual efforts to achieve these goals, which often lead to duplication of efforts and also delays the speed of data generation due to perpetual training of incoming students every year. Therefore, the institute has established a centralized facility Gene Functional Analysis Platform for Crops (GRAPC) which would also enhance the pace of generating over-expression/ knock-down/ genome edited lines for desired genes. This will lead to a significant increase in the research output and will in turn also aid efforts towards crop improvements.

In the past two years, the facility has generated several transgenic plants in all the aforesaid four crops to cater to the needs of the organization. The facility runs in a time bound manner and has immensely helped the research scholars and scientists in accelerating their research works.



Images of four Green houses created to house transgenic rice, chickpea, tomato and mustard plants

NIPGR Sub-DIC Facility (DISC)

The Sub-DIC facility at NIPGR is engaged in three different Bioinformatics research programs. First, it hosts the genome browsers and genomic resources of cultivated and wild chickpea that NIPGR has sequenced. It also hosts an interactive transcriptome database with tissue-specific gene expression analysis of cultivated and wild chickpea. Additionally, it hosts various other databases on several crops. These databases are regularly updated with new information. One of the major activities of this centre is to understand the structure-function relationship of Mediator complex. Mediator is a large multiprotein complex required for regulation of transcription in eukaryotic cells. We have shown that disorder nature of some subunits makes the Mediator complex very flexible as it can adopt different structural conformation in different context. Next, since structure of plant Mediator complex is not yet solved, we delineated the interaction map of Mediator complex and deduced the overall structural topology of the core part of the complex in Arabidopsis. Now we are trying to elucidate the regulatory network of Mediator complex. The second project deals with different aspects of novel RNA molecules in plants. Characterization of fusion genes/transcripts in plants is also one focus. Fusion events may occur at both DNA and RNA level in most organisms including plants. Initially, we identified the fusion transcripts in > 4,000 paired-end RNA-Seq datasets of model plant Arabidopsis thaliana. Now, we are trying to understand the mechanism of fusion transcripts/genes formation and their function in different plant species. On the other hand, identification and characterization of different RNA fragments e.g. transfer RNA-derived fragments (e.g. tRFs) and ribosomal RNA-derived fragments (e.g. rRFs), is also a major area of bioinformatics research going on in our centre.

Software and databases developed

- ❖ tsRNA-Toolkit: A tool for the identification of tRFs (<http://www.nipgr.ac.in/tsRNA-Toolkit>)
- ❖ PtRNADB: A database containing information of tRNA genes (<http://www.nipgr.ac.in/PtRNADB/>)
- ❖ PlantPepDB: A database of plant peptides having different functions and therapeutic activities (<http://www.nipgr.ac.in/PlantPepDB/>)

Execution of MoU by NIPGR with DBT

The provisions of General Financial Rules 2017, Rule 229 (xi), envisage that Autonomous Organisations of the Government of India should enter into a Memorandum of Understanding (MoU) with the Administrative Ministry or Department, spelling out clearly performance parameters, output targets in term of details of programme of work and qualitative improvement in output, alongwith commensurate input requirements. The above Rules further provide that while the autonomy of the organisation is to be ensured by incorporating in the MoU the relevant provisions of the Bye-Laws, the performance of the organisation shall be evaluated based on the targets specified in the MoU, with in the overall ambit of mission and vision of the organisation. In line with the foregoing, NIPGR has executed MoU with the Department of Biotechnology for the year 2019 – 20.

Execution of MoU by NIPGR with BIBCOL

NIPGR is desirous of setting up Field Stations including Agricultural Plot, Green/Poly houses, Seed Storage, Site Office/Laboratory etc. for research and development purposes. Towards this, the Institute has approached the Bharat Immunologicals & Biologicals Corporation Limited, Bulandshahr, UP, (BIBCOL), a Government of India Undertaking, Under the Department of Biotechnology, Ministry of Science & Technology, Government of India, to provide an area of approximately 15 acres of land for housing its Field Stations, and other infrastructure, for its research purposes. In consideration of the use of the above-mentioned facilities and the surrounding area, the Institute has agreed to bear the entire cost of preparing plans and design as well as the development of the facilities.

The BIBCOL has agreed to allot an area of 13.90 acres of land (8.59 acres near village Gangerwa, Bulandshahr and 5.31 acres in Village Chola, Bulandshahr) on long term lease basis for a period of 30 years, for the use of the Institute. Towards this a Memorandum of Understanding (MoU) is being executed by both the parties.

Promotion of progressive use of Hindi in official working

NIPGR has been awarded third prize in the category of "Boards/ Autonomous Organisations in Region A", for excellence in implementation of Official Language Policy of the Government of India for the year 2018-19, by the Department of Official Language, Ministry of Home Affairs, Government of India. The Award has been conferred on the occasion of Hindi Diwas (September 14, 2019) by the Hon'ble Union Minister for Ministry of Home Affairs, Shri Amit Shah.





Contribution/collaborations with North East Region (NER)

The Perception Management plan in respect of North Eastern States of India is being implemented and operated by the Institute through its major activities. NIPGR being a research & educational institute has been in constant touch with the citizens of India including that of North Eastern States. Time to time, various seminars / workshops / lectures etc. have been organized by the Institute either individually or in association with other organizations with the objective to gain and spread the knowledge among the scientists / students / researchers from all over the world including North Eastern States of India. NIPGR, for last few years, is also organizing public outreach programmes and encouraging visits for school children including from North Eastern States of India to the Institute, to stimulate & attract young minds towards the plant science research. The Ph.D. Programme of the Institute, wherein around 25 students, belonging to different states of India, including that of North Eastern States are admitted every year, contributes immensely in the direction of National Integration. Students of North East region through various cultural activities / festivities etc. bring forward and spread the culture & traditions of their native states. Besides, the training programme of the Institute which runs throughout the year, brings researchers/students from all over India including North Eastern States to one platform which helps in fusion of the culture, values, traditions, etc.

Further, the Institute encourages its researchers to establish research collaborations with the Institutions/Universities of the North East India. Towards this, Institute has established collaboration with various Institutions/Universities of the North East India through various research projects. In this connection, one project has been awarded to the Institute under Twinning Programme of Department of Biotechnology-North East Scheme, entitled "Identification of genes contributing resistance to *Alternaria brassicae* from a nonhost plant and their characterization in *Arabidopsis* for durable crop protection against blight disease in *Brassica rapa*". Additionally, three projects of the Department of Biotechnology entitled (i) 'Functional Validation of yield related gene' sanctioned under Scented Rice Program for North East, (ii) 'Using foldscope to investigate reactive oxygen and nitric oxide signaling during plant pathogen interaction' and (iii) 'Understanding mechanistic detail of growth promotion and stress tolerance in legume crop by fungal endophyte through secretome and metabolomics study' under the open call, are being implemented successfully at NIPGR. Furthermore, fresh collaborative projects with the institutes/universities of North Eastern region of India have been taken up under the call of Department of Biotechnology (DBT). Additionally, NIPGR is engaging researchers from all parts of India including from North Eastern States in different capacities in various research projects being implemented in the Institute, for pursuing research in Plant Biotechnology and proving to be an effective medium of perception management of citizens from North Eastern States of India.

The Library of the Institute besides having collection of research books/journals etc. also hosts books on life, culture, religion, scenic beauties, tourism etc. of North Eastern States. The same are distinctly displayed with the aim to widely spread the information about these states. In addition, the Institute's 'Wall Magazine', where creations/compositions in the form of articles, poems, essays, etc. are displayed, students /staff members are encouraged to display articles and other compositions reflecting the life style, natural diversity etc. of North East Region.

DST-INSPIRE Faculty Award

Understanding role of MAPKs signaling cascade in regulation of peptides encoded by pri-miRNAs in rice

PI: Dr. Deepika Sharma

MicroRNAs (miRNAs) are produced from imperfect fold-back structures rooted into endogenous primary transcripts of miRNA (pri-miRNA), the function of which is not fully understood. However, recent studies have revealed that these pri-miRNAs have short open reading frames (smORFs) that encodes regulatory peptides of 2-100aa, termed as miRNA-encoded peptides (miPEPs), indicating that pri-miRNAs possess both protein-coding and non-coding functions. Studies have showed that exogenous application of miPEPs enhances the transcription of their associated miRNAs, leading to increased production of respective miRNA and more prominent silencing of subsequent target genes. From the past few years, potential role of mitogen-activated protein kinase (MAPK) signaling pathway in a wide range of cellular processes have been identified. They have evolved to relay signals, from membrane-bound receptors to transcription factors (TFs), through consecutive phosphorylation events. Through in silico analysis, it is possible to find putative phosphorylation sites on a protein or a peptide for MAPKs, which will make possible to

hypothesize that may be MAPKs regulates miPEPs in plants. The regulation of transcription of miRNAs is poorly studied and the role of the primary transcript of miRNA in miRNA biogenesis is poorly understood. The aim of the study is to identify functional miPEPs in rice that affect miRNA biogenesis and activity followed by their regulation by MAPKs signaling components.

Monthly Seminar Series (2019-2020)

Scientific Lectures

1.	Prof. Teresa Fitzpatrick Department of Botany and Plant Biology, University of Geneva, Switzerland	The importance of Vitamin B6 in environmental stress responses in plants	April 26, 2019
2.	Prof. Josep Penuelas National Research Council of Spain (CSIC)	Responses of ecosystems and society in a world increasingly rich in N and C but limited in P	May 21, 2019
3.	Prof. Alison Smith University of Cambridge, UK	Synthetic Biology Approaches to Manipulate Algal Metabolism	July 26, 2019
4.	Prof. Kiran Mysore Noble Research Institute, USA	Insertional Mutagenesis of <i>Medicago truncatula</i> and its Utilization to Identify Novel Sources of Resistance against Asian Soybean Rust	July 31, 2019
5.	Dr. Sam Periyannan CSIRO Agriculture & Food, Australia	Protecting the global wheat cultivation through rapid detection of resistance for the deadly rust disease	August 01, 2019
6.	Dr. Arvind Kumar Director, Institute of Robotic Surgery, Sir Ganga Ram Hospital, New Delhi	Air Pollution: A Silent Killer, Act Now or Perish!	November 04, 2019
7.	Dr. Roshan Kumar NIPGR, New Delhi	Molecular Basis of the Evolution of Methylthioalkylmalate Synthase and the Diversity of Methionine-Derived Glucosinolates	November 28, 2019
8.	Dr. Sourobh Maji NIPGR, New Delhi	Interaction map of Arabidopsis Mediator complex expounding its topology	November 28, 2019
9.	Ms. Laxmi Narnoliya NIPGR, New Delhi	Transcriptional signatures modulating shoot apical meristem morphometric and plant architectural traits enhance yield and productivity in chickpea	November 28, 2019
10.	Mr. Ramgopal Prajapati NIPGR, New Delhi	The Ca ²⁺ Channel CNGC19 Regulates Arabidopsis Defense Against Spodoptera Herbivory	November 28, 2019
11.	Dr. Neha Bhatia Postdoctoral Researcher Department of Comparative Development and Genetics, Max Planck Institute for Plant Breeding Research, Cologne, Germany	Developmental patterning in plants	January 03, 2020

12.	Dr. Carl Malamud President of Public Resource, U.S.- based nongovernment organization	Gyan Swaraj: Access to Knowledge as a Prerequisite for Progress	January 16, 2020
13.	Dr. Sarah M. Schmidt Project Coordinator, Healthy Crops Heinrich-Heine- Universität Düsseldorf, Germany	SWEET solution to bacterial blight disease of rice: The Healthy Crops project	January 23, 2020
14.	Dr. Ritu Trivedi Principal Scientist Central Drug Research Institute, Lucknow	Bridging the gap between traditional and modern medicine in the fight against osteoporosis	January 24, 2020
15.	Dr. Donald MacKenzie Executive Director, Institute for International Crop Improvement (IICI) Donald Danforth Plant Science Center, USA	Potential, Safety Assessment and Regulation of Gene Edited Plants	January 27, 2020
16.	Prof. Harvey Miller The University of Western Australia	What drives the phenotype of plant respiratory rate: Mapping out the details of mitochondrial metabolic function	January 31, 2020
17.	Prof. Ling Yuan Department of Plant and Soil Sciences, University of Kentucky, USA	Transcriptional Regulation of Biosynthesis of Plant Specialized Metabolites	March 06, 2020

Academic Courses and Training Programmes

Ph. D. Programme

As in the previous years, the response for admission to Institute's Ph. D. programme was very encouraging this year also. The candidates are selected after a national level test followed by interview conducted by NIPGR. Only CSIR-JRF/UGC-JRF/DBT-JRF/ICMR-JRF Fellowship awardees/DST INSPIRE Fellowship for pursuing full-time Ph. D. program are eligible to apply. The selected scholars are first required to do course work, which is followed by research work on different areas on Plant Genomics in various laboratories. A total number of 265 students have registered for the Programme leading to Ph. D. degree to JNU since the Academic year 2001-2002 and out of these, 129 students have been awarded with Ph. D. degree, and the rest are at various stages of their Ph. D. work.

Student enrolled for Ph. D. programme 2019-20

Sl.No.	Name of the Student	Name of the Supervisor
1.	Mr. Ankit Yadav	Dr. Debasis Chattopadhyay
2.	Ms. Rumi	Dr. Alok Krishna Sinha/ Dr. Jitender Giri
3.	Ms. Sarvesh Jonwal	Dr. Alok Krishna Sinha
4.	Mr. Asish Kumar Padhy	Dr. Sabhyata Bhatia
5.	Ms. Athira M. Nair	Dr. Praveen Verma
6.	Ms. Jyoti Maurya	Dr. Manoj Prasad
7.	Ms. Kajol BM Singh	Dr. Jitendra K. Thakur
8.	Ms. Prabha	Dr. Gitanjali Yadav
9.	Ms. Tammineni Ramya	Dr. Gitanjali Yadav
10.	Mr. B Halidev Krishna Botta	Dr. Ashverya Laxmi
11.	Mr. Rakesh Kumar Achary	Dr. Manoj Majee
12.	Ms. Avni Mann	Dr. Naveen Chandra Bisht
13.	Mr. Manbir	Dr. Jagadis Gupta Kapuganti
14.	Ms. Rekha	Dr. Jagadis Gupta Kapuganti
15.	Ms. Nidhi Gandhi	Dr. Ananda K. Sarkar
16.	Mr. Debashis Sahoo	Dr. Gopaljee Jha
17.	Ms. Anjali	Dr. Senthil-Kumar Muthappa
18.	Ms. Apoorva Gupta	Dr. Saloni Mathur
19.	Ms. Kanika Maurya	Dr. Jitender Giri
20.	Ms. Antima Yadav	Dr. Pinky Agarwal
21.	Mr. Jitendra Kumar Mohanty	Dr. Swarup K. Parida
22.	Ms. Shruti Mishra	Dr. Jyothilakshmi Vadassery
23.	Ms. Shreya Gupta	Dr. Amar Pal Singh

Students pursuing Ph. D. at the Institute (excluding those enrolled during 2019-2020)

Sl.No.	Name of the Student	Name of the Supervisor and Joint/Co-supervisor
1.	Ms. Pooja Choudhary	Dr. Subhra Chakraborty
2.	Mr. Manish Tiwari	Dr. Sabhyata Bhatia
3.	Mr. Amish Kumar	Dr. Gitanjali Yadav
4.	Mr. Mohan Sharma	Dr. Ashverya Laxmi
5.	Mr. Pawan Kumar	Dr. Naveen Chandra Bisht
6.	Mr. Pramod Kumar	Dr. Ananda K. Sarkar
7.	Mr. Sombir	Dr. Saloni Mathur
8.	Ms. Urooj Fatima	Dr. Senthil K. Muthappa
9.	Ms. Aarzoo Qamar	Dr. Senthil K. Muthappa
10.	Mr. Lande Nilesh Vikram	Dr. Subhra Chakraborty/ Dr. Niranjana Chakraborty
11.	Mr. Pramod Kumar Mittal	Dr. Subhra Chakraborty
12.	Mr. Nilesh Kumar Sharma	Dr. Debasis Chattopadhyay
13.	Mr. Niraj K. Vishwakarma	Dr. Debasis Chattopadhyay
14.	Ms. Stanzin Noryang	Dr. Alok Krishna Sinha
15.	Ms. Kanchan Prabha	Dr. Praveen Verma
16.	Mr. Shreenivas Kumar Singh	Dr. Praveen Verma
17.	Mr. Roshan Kumar Singh	Dr. Manoj Prasad
18.	Ms. Annvi Dhaka	Dr. Manoj Prasad
19.	Mr. Sanjeet Kumar Mahtha	Dr. Gitanjali Yadav
20.	Ms. Manvi Sharma	Dr. Ashverya Laxmi
21.	Ms. Dhriti Singh	Dr. Ashverya Laxmi
22.	Ms. Shraboni Ghosh	Dr. Manoj Majee
23.	Mr. Sunil Kumar Yadav	Dr. Gopaljee Jha
24.	Ms. Sarita Jha	Dr. Saloni Mathur
25.	Ms. Aanchal Choudhary	Dr. Senthil K. Muthappa
26.	Mr. Sandeep Kumar Dixit	Dr. Senthil K. Muthappa
27.	Mr. Ankit Verma	Dr. Pinky Agarwal/ Prof. Akhilesh Kumar Tyagi
28.	Mr. Daware Anurag Vasantrao	Dr. Swarup Kumar Parida/ Prof. Akhilesh Kumar Tyagi
29.	Ms. Akanksha Pareek	Dr. Subhra Chakraborty/ Dr. Niranjana Chakraborty

Sl.No.	Name of the Student	Name of the Supervisor and Joint/Co-supervisor
30.	Ms. Megha Choudhary	Dr. Debasis Chattopadhyay
31.	Ms. Lalita Pal	Dr. Debasis Chattopadhyay
32.	Ms. Kirti	Dr. Alok Krishna Sinha
33.	Ms. Sumaira Tayyeba	Dr. Alok Krishna Sinha
34.	Mr. Saurabh Pandey	Dr. Manoj Prasad
35.	Ms. Archana Tiwari	Dr. Ashverya Laxmi
36.	Mr. Yeshveer Singh	Dr. Praveen Verma
37.	Mr. Gourav Singh	Dr. Sabhyata Bhatia
38.	Ms. Juhi Kumari	Dr. Naveen C. Bisht
39.	Mr. Pradeep Kumar Pathak	Dr. Jagadis Gupta Kapuganti
40.	Ms. Mahima	Dr. Ananda K. Sarkar
41.	Mr. Vishnu Mishra	Dr. Ananda K. Sarkar
42.	Ms. Kriti Tyagi	Dr. Gopaljee Jha
43.	Ms. Chandni Bansal	Dr. Saloni Mathur
44.	Mr. Vadivel Murugan I.	Dr. Senthil K Muthappa
45.	Mr. Lokesh Verma	Dr. Jitender Giri
46.	Mr. Jyoti Bhadouria	Dr. Jitender Giri
47.	Ms. Laxmi	Dr. Swarup K. Parida
48.	Mr. Virevol Thakro	Dr. Swarup K. Parida
49.	Ms. Deepika Mittal	Dr. Jyothilakshmi Vadassery
50.	Mr. Ramgopal	Dr. Jyothilakshmi Vadassery
51.	Ms. Juhi Bhattacharya	Dr. Aashish Ranjan
52.	Mr. Jyotirmaya Mathan	Dr. Aashish Ranjan
53.	Md. Yasir Arafat	Dr. Subhra Chakraborty
54.	Ms. Archana	Dr. Subhra Chakraborty
55.	Ms. Latika Bhola	Dr. Subhra Chakraborty
56.	Ms. Aleena Francis	Dr. Debasis Chattopadhyay
57.	Mr. Gopal Banerjee	Dr. Alok Krishna Sinha
58.	Mr. Baljinder Singh	Dr. Sabhyata Bhatia
59.	Mr. Anirban Chakraborty	Dr. Sabhyata Bhatia
60.	Mr. Jawahar Singh	Dr. Praveen Verma
61.	Ms. Shambhavi	Dr. Manoj Prasad
62.	Mr. Hari Gowthem G.	Dr. Manoj Prasad
63.	Ms. Harshita Bharti Saksena	Dr. Ashverya Laxmi

Sl.No.	Name of the Student	Name of the Supervisor and Joint/Co-supervisor
64.	Mr. Abhijit Hazra	Dr. Manoj Majee
65.	Ms. Ruchi Tiwari	Dr. Naveen Chandra Bisht
66.	Ms. Namrata Singh	Dr. Jagadis Gupta Kapuganti
67.	Ms. Pooja Singh	Dr. Jagadis Gupta Kapuganti
68.	Ms. Joyati Das	Dr. Gopaljee Jha
69.	Ms. Jaishri Rubina Das	Dr. Saloni Mathur
70.	Ms. Poonam Panchal	Dr. Jitender Giri
71.	Ms. Udit Basu	Dr. Swarup K. Parida
72.	Mr. Vinod Kumar Prajapati	Dr. Jyothilakshmi Vadassery
73.	Mr. Vikram Dattatray Jathar	Dr. Aashish Ranjan
74.	Mr. Sunil Kumar	Dr. Niranjana Chakraborty
75.	Ms. Atreyee Sengupta	Dr. Subhra Chakraborty
76.	Ms. Paheli Malakar	Dr. Debasis Chattopadhyay
77.	Ms. Ankita Shree	Dr. Praveen Verma
78.	Ms. Ritu Singh	Dr. Praveen Verma
79.	Mr. Ashish Prasad	Dr. Manoj Prasad
80.	Ms. Rekha Agrawal	Dr. Jitendra K. Thakur
81.	Mr. Shubhashis Das	Dr. Jitendra K. Thakur
82.	Ms. Citu	Dr. Gitanjali Yadav
83.	Mr. Vishal Varshney	Dr. Manoj Majee
84.	Ms. Richa Priyadarshini	Dr. Pinky Agarwal
85.	Ms. Priya Jaiswal	Dr. Pinky Agarwal
86.	Ms. Aditi Dwivedi	Dr. Aashish Ranjan
87.	Ms. Sushma Sagar	Dr. Amarjeet Singh
88.	Ms. Shafaque Zahra	Dr. Shailesh Kumar
89.	Mr. Ajeet Singh	Dr. Shailesh Kumar
90.	Mr. Bikash Raul	Dr. Senjuti Sinha Roy
91.	Mr. Jogindra Naik	Dr. Ashutosh Pandey
92.	Ms. Ruchika	Dr. Ashutosh Pandey
93.	Ms. Shilpa Singh	Dr. Subhra Chakraborty
94.	Mr. Dhanraj Singh	Dr. Alok Krishna Sinha
95.	Ms. Manisha	Dr. Sabhyata Bhatia
96.	Mr. Pawandeep Singh Kohli	Dr. Jitendra K. Thakur/ Dr. Jitender Giri

Sl.No.	Name of the Student	Name of the Supervisor and Joint/Co-supervisor
97.	Ms. Pallabi Thakur	Dr. Jitendra K. Thakur
98.	Mr. Abhishek Prasad	Dr. Gitanjali Yadav
99.	Mr. Prakhar	Dr. Ashverya Laxmi
100.	Mr. Sanjay	Dr. Ashverya Laxmi
101.	Mr. Mohan Varghese	Dr. Naveen Chandra Bisht
102.	Ms. Bhanu Malhotra	Dr. Naveen Chandra Bisht
103.	Mr. Sourav Chatterjee	Dr. Ananda K. Sarkar
104.	Ms. Amrita Pradhan	Dr. Gopaljee Jha
105.	Ms. Akanksha Bhardwaj	Dr. Senjuti Sinharoy
106.	Ms. Deevita Srivastava	Dr. Senjuti Sinharoy
107.	Ms. Anshika Pandey	Dr. Amar Pal Singh
108.	Ms. Loitongbam Lorinda Devi	Dr. Amar Pal Singh
109.	Ms. Deepika	Dr. Amarjeet Singh
110.	Ms. Komal Vitthalrao Mali	Dr. Senthil-Kumar Muthappa
111.	Ms. Mohini Jaiswal	Dr. Shailesh Kumar
112.	Mr. A. T. Vivek	Dr. Shailesh Kumar
113.	Ms. Samiksha Saxena	Dr. Ashutosh Pandey

Ph. D. Degree awarded to NIPGR Scholars

The Jawaharlal Nehru University, New Delhi awarded the degree of Doctoral of Philosophy to the following scholars of the Institute during the year (2019-20) under report:

Sl. No.	Name of the Student	Thesis Title	Name of the Supervisor/ Co-supervisor
1.	Dr. Shouvik Das	Molecular dissection of major yield contributing quantitative traits in Chickpea	Dr. Swarup K. Parida
2.	Dr. Pragya Barua	Study of differential protein expression in the plasma membrane of chickpea (<i>Cicer arietinum</i> L.) under dehydration stress	Dr. Niranjana Chakraborty
3.	Dr. Arunima Mahto	Analysis of the role of certain transcription factors and diversity in seed size and weight during rice seed development	Dr. Pinky Agarwal
4.	Dr. Sandeep Yadav	Regulation and Function of Selected Small RNAs in <i>Arabidopsis thaliana</i> Root Development	Dr. Ananda K. Sarkar,
5.	Dr. Deepti M. Nambiar	To study functional divergence of glucosinolates transporter gene family in <i>Brassica juncea</i>	Dr. Naveen Chandra Bisht
6.	Dr. Angad Kumar	Characterization of functional polymorphism and epigenetic modifications in Med subunit gene loci in rice genotypes with contrasting seed size	Dr. Jitendra K. Thakur
7.	Dr. Divya Rathi	Molecular profiling of grasspea (<i>Lathyrus sativus</i> L.) under water-deficit condition: insight into abiotic stress tolerance	Dr. Niranjana Chakraborty
8.	Dr. Deepanjali Verma	Investigation of novel regulators involved in MAP Kinase and light signaling pathways in Arabidopsis seedling development	Dr. Alok Krishna Sinha
9.	Dr. Divya Mishra	Identification of high temperature stress-responsive proteins in wheat (<i>Triticum aestivum</i> L.): a comparative proteomics approach	Dr. Niranjana Chakraborty
10.	Dr. Arunima Sinha	Study of nutrient-and disease-responsive subcellular proteome and phospho-proteome in crop plants	Dr. Subhra Chakraborty
11.	Dr. Isha Tyagi	Molecular characterization of mycophagous activity of an antifungal bacterium against <i>Rhizoctonia solani</i>	Dr. Gopaljee Jha
12.	Dr. Prakash Kumar Bhagat	Investigation of the role of MAP kinase in biogenesis of MicroRNA (miRNA) in plants	Dr. Alok Krishna Sinha
13.	Dr. Ajit Pal Singh	Role of Jasmonate Signaling Components in Nutrients Deficiency Response in Rice and Chickpea	Dr. Jitender Giri

Researchers other than Ph.D. students

Research Associates

1	Aakanksha Wany	29	Durga Madhav Swain
2	Abhay Pratap Vishwakarma	30	Heena Ambreen
3	Abhimanyu Jogawat	31	Hema Ramanna
4	Abira Choudhuri	32	Irshad Ahmad
5	Alim Junaid	33	Jitender Singh
6	Alka Singh	34	Jitendra Verma
7	Angad Kumar	35	Kamble Nitin Uttam
8	Anish Kundu	36	Kamlesh Sahu
9	Ankita Magotra	37	Kanchan Jumrani
10	Anuj Dwivedi	38	Kanika Narula
11	Anuradha Singh Yadav	39	Kumud Saini
12	Arunava Mandal	40	Mahesh Patil
13	Arunima Sinha	41	Mallesham Bulle
14	Ashutosh Kumar	42	Mamta Rani
15	Ayan Das	43	Manish Kumar Patel
16	Bala Rengaswamy	44	Mrinalini Manna
17	Balaji M	45	Mustafa Raza
18	Bendangchuchang Longchar	46	Namisha Sharma
19	Bornali Gohain	47	Nandita Pasari
20	Chandana Pandey	48	Naveen Malik
21	Chandra Bhan Yadav	49	Neetu Verma
22	Chitra Bhatia	50	Nidhi Singh
23	D. Balasubramaniam	51	Nisha Lakhota
24	Debaleena B. Chattopadhyaya	52	Pankaj Kumar Verma
25	Deepanjali Verma	53	Papa Rao Vaikuntapu
26	Dhirendra Fartyal	54	Piyush Priya
27	Dipak Gayen	55	Poonam Mishra
28	Divya Rathi	56	Poonam Kanwar

57 Pravin Kumar
 58 Pritha Kundu
 59 Priyanka Agarwal
 60 Priyanka Dhakate
 61 Priyanka Ghorai
 62 Priyanka Sood
 63 Rahul Kumar
 64 Ranjan Kumar Sahoo
 65 Ranjita Sinha
 66 Ravi Kant
 67 Ravi Kiran Purama
 68 Renu Kumari
 69 Ritesh Kumar Yadav
 70 Roshan Kumar
 71 Saikat Pal
 72 Sandeep Yadav
 73 Sandhya Verma
 74 Sayanti Kundu
 75 Sekhu Ansari
 76 Shalini Mukherjee

77 Shikha Rani
 78 Shivendra Kumar
 79 Srayan Ghosh
 80 Shubhendu Shekhar
 81 Shweta
 82 Shweta Roy
 83 Sipla Aggarwal
 84 Sonam Chaudhary
 85 Sonia Balyan
 86 Sonika Pandey
 87 Sudip Ghosh
 88 Sunita Jindal
 89 Swati Verma
 90 Tirthankar Bandyopadhyay
 91 Verandra Kumar
 92 Vijay Sheri
 93 Vijay Wardhan
 94 Vimal Pandey
 95 Vinod Kumar Jangid

Project Fellows

1 Ajit Pal Singh
 2 Akash Sharma
 3 Ambrish Kumar
 4 Amit Ghosh
 5 Amit Kumar
 6 Anandini Mahapatra
 7 Ankit
 8 Anukriti Ghosh
 9 Aparjita Kumari
 10 Appus. M.V
 11 Aprajita Sharma
 12 Ashish Chauhan

13 Balaji M.
 14 Bharoti Sengupta
 15 Biswaranjan Rout
 16 Chandan Kaladhar
 17 Chandan Kumar
 18 Deepak Bajaj
 19 Deepti M. Nambiar
 20 Dharmendra Nath Bhatt
 21 Dipul Kumar Biswas
 22 Divya Goyal
 23 Divya Mishra
 24 Drishti Mandal

25	Durdam Das	50	Prakshi Aneja
26	Garima Chauhan	51	Priya Dulani
27	J. Christina Sagaya Nilofer	52	Priyanka Kumari
28	Jyoti Singh	53	Rajul Tayal
29	K R Anjitha	54	Ravindra Kumar
30	Khyati Paney	55	Ravindra Kumar Chandan
31	Kritika Rajain	56	Reena Rathor
32	Kunal Tembhare	57	Reetika Tandon
33	Mamta	58	Rishi Srivastava
34	Mamta Sharma	59	Riya Joon
35	Mashreeta Singh	60	Ruchi Rani
36	Meghna Agarwal	61	Saurabh Pandey
37	Nagendra Pratap Singh	62	Saurabh Singh
38	Nidhi Varshney	63	Shikha Goutam
39	Nikhat Parveen	64	Shweta Singh
40	Nikita Gupta	65	Subodh Verma
41	Oceania Chirom	66	Tarannum Shaheen
42	Oindrila Bhattacharjee	67	Ved Prakash
43	Oshin Sharma	68	Vijay Vikram Singh
44	Paramita Bera	69	Vinay Kumar
45	Paulomi Goswami	70	Vinita Lamba
46	Poonam Ray	71	Vipin Kumar
47	Poonam Vanaspathi	72	Vipin Yadav
48	Pragya Barua	73	Vishnu S. Babu
49	Prakash Kumar Bhagat		

Training Programme

The Institute accepts students from different Universities/Institutes as trainees and provides them facilities and guidance. A list of students from various universities/institutions trained by faculty of the Institute is given below:

Trainees at Post Graduate level

1.	A Durgadevi	M.Sc. (Biotechnology), DBT, Alagappa University, Karaikudi Tamilnadu
2.	Adrija Saurabh,	M.Sc., Banaras Hindu University, Varanasi
3.	Alex Jose	M. Sc. (Biotechnology), DBT, Cochin University of Science and Technology, Cochin
4.	Anjali Mishra	M. Sc. (Biotechnology), Central University of Haryana
5.	Arya Das	M.Sc. (Bioinformatics), School of Biotechnology, Amrita Vishwa Vidyapeetham, Kollam,
6.	Athira C.K.	Mar Athanasios College for Advanced Studies Tiruvalla, Kerala
7.	Belure Avinash Sangram	REVA University, Bengaluru Karnataka
8.	Bhawana	M. Sc., IISER, Pune
9.	Bhawana Rai	M. Sc. (Plant biotechnology), BHU, Varanasi, U.P.
10.	Chhaya Dhingra	M. Sc. (Biotechnology), TERI School of Advanced Studies, Delhi
11.	Garima Jain	M. Sc., Dr. B.R. Ambedkar University, Agra, U.P, India
12.	Girdhar Bhati	M. Sc. (Biotechnology), Lachoo Memorial College of Science and Technology, Jaipur
13.	Harshita Negi	M.Sc. (Plant Biotechnology), TERI School of Advanced Studies, New Delhi
14.	Harshita Saxena	M.Sc. (Plant Biotechnology), Department of Biotechnology, TERI School of Advanced Studies, New Delhi
15.	Himanshu Sharma	B. Tech (Biotechnology), Department of Molecular & Cellular Engineering, Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj, U.P
16.	Jasneet Kaur	M. Sc. (Biotechnology), Mewar Institute of Management, Ghazaibad, U.P.
17.	Jeevitha R	B.Sc. (Agri Biotechnology), University of Agricultural Sciences, Bangalore, Karnataka
18.	Komal Sahu	M. Sc. (Microbiology), Maharishi Markandeshwar University, Haryana

19.	Laxmi Sharma	M. Sc. (Biotechnology), Deenbandhu Chhotu Ram University of Science & Technology, Murthal, Haryana
20.	Mahesh Kamate	M.Sc., University of Agricultural Science, Bengaluru (Through Indian Academy of Sciences)
21.	Manideep Sood	M. Sc. (Biotechnology), DBT, School of Life Sciences, Dr. B.R. Ambedkar University Khandari Campus, Agra
22.	Manisha	M. Sc. (Biotechnology), Dept. of Biotechnology, Kurukshetra University, Haryana
23.	Mohd Hadi Yunus	M.Sc. (Biotechnology), DBT, Jamia Hamdard, New Delhi
24.	Monika	M. Sc. (Bio-Tech), Ch. Charan Singh University, Meerut, UP
25.	Pankaj Dhakad	BS-MS dual degree, IISER, Bhopal
26.	Pooja Joshi	M. Sc. (Biosciences), Jamia Milia Islamia Central University, Delhi
27.	Prajukta Priyadarshini	M. Tech., Gautam Buddha University, School of Biotechnology, Greater Noida
28.	Raja Babu Mani Tripathi	M.Sc. (Biotechnology) from Lovely Professional University, Phagwara, Punjab
29.	Ravpreet Kaur	M. Sc. (Plant Biotechnology), TERI School of Advanced Studies, New Delhi
30.	Rohit Gupta	M.Sc., School of Life Sciences, Debi Ahilya Vishwavidyalaya, Indor, M.P.
31.	Roshan Samuel	M. Sc., Cellular and Molecular Oncology, Amity University Uttar Pradesh, Noida
32.	S. Aroon Gracy	M. Tech (Biotechnology) Integrated course, Department of Biotechnology, Bharathidasan University, Tamil Nadu
33.	Sakshita Singh	M. Sc., Awadh Pratap Singh University, Rewa, MP
34.	Sayali Gosavi	M. Sc., Savitri Phule University, Pune
35.	Shalini Sharma	M. Sc. (Biotechnology), Institute of Management Studies, Ghaziabad
36.	Shazia Akhtar	M.Sc. (Biotechnology), Invertis University, Bareilly, U.P.
37.	Shivani	M. Sc. (Biotechnology), DBT, Jamia Hamdard, New Delhi
38.	Shivani Khasgiwale	M.Sc. (Biotechnology), Govt. Kamla Raja Girls Post Graduate College, Gwalior, M.P.
39.	Shreya Singh	B. Tech + M. Tech, Amity University, Rajasthan, Jaipur
40.	Shruthi Mohan	BE, Ramaiah, Institute of Technology, Bangalore (Joint Science Academies Summer Research Fellowship for 2019 - Indian Academy of Sciences)
41.	Sijal Acharya	M. Sc. (Biotechnology), Siksha "O' Anusandhan, (Deemed to be University), Bhubaneswar, Odisha
42.	Sujishna V U	M.Sc. (Biotechnology), Amrita School of Biotechnology (Amrita Vishwa Vidyapeetham, Kollam, Kerala)
43.	Surbhi Chauhan	M. Sc. (Biotechnology), Graphic Era Deemed University, Dehradun, Uttarakhand

44.	Sureecha	M.Sc. (Biotechnology), Department of Botany, Patna University, Patna
45.	Twinkle Singh	M.Sc. (Biotechnology), Invertis University, U.P.
46.	Unais	M. Sc., DBT, Cochin University of Science and Technology, Cochin University
47.	Vinodhini S.	M. Tech (Bioinformatics), Hyderabad Central University (Through Joint Science Academies, SRF Programme 2019)
48.	Vishal Chandra	M. Sc. (Biotechnology), DBT, School of Applied Sciences, REVA University, Bengaluru, Karnataka

Trainees at Under Graduate level

1.	Ankit Solanki	B. Tech Degree in Biotechnology, Amity University, Noida
2.	Ankita Prusty	B. Tech (Biotechnology), Amity University
3.	Aranya Paul Nandi	B. Sc. (Honors), Department of Biochemistry, Sri Venkateswara College, University of Delhi
4.	Arka Dutta	BS-MS (Dual Degree), Indian Institute of Science Education and Research, Bhopal
5.	Charul Singh	B. Tech (Biotechnology), Amity Institute of Biotechnology, Amity University, Noida, UP
6.	Harsha Jha	Amity Institute of Biotechnology, Amity University, U.P.
7.	Isheeta Lohia	B. Tech (Biotechnology), Delhi Technological University, Delhi
8.	Karnica	B. Tech (Biotechnology), Sam Higginbottom University of Agriculture, Technology & Sciences, Prayagraj, UP
9.	Nivedita Chauhan	B. Tech., Amity Institute of Biotechnology, Amity University, Madhya Pradesh, Gwalior
10.	Nupur Potukuchi	B. Sc. (H), Amity Institute of Biotechnology, Noida, UP
11.	Rishika K.S.	B. Sc., University of Agricultural Sciences, College of Agriculture, Hassan, Karnataka [Joint Science Academy (IASc-INSa-NASI)]
12.	Ritu Sharma	B. Tech (Biotechnology), Amity Institute of Biotechnology (AIB), Amity University, Madhya Pradesh
13.	Roopal Behera	B. Tech, Amity University, Kolkata
14.	Rucha	IISER, Bhopal, M.P. (Through Joint Science Academies, SRF Programme, 2019)
15.	Sanskriti Parida	Kalinga Nagar, Bhubaneswar, Orissa, (through Joint Science Academies, Summer Research Fellowship Programme, 2019)
16.	Shalini Kumari Jha	B. Tech (Biotechnology), Heritage Institute of Technology, Kolkata
17.	Shruti Mishra	Amity Institute of Biotechnology, Amity University, Gautam Buddha Nagar, U.P.

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| 18. | Shubhangi Ghosh | B. Tech (Biotechnology), Jaypee University of Information Technology, Waknaghat, Solan, Himachal Pradesh |
| 19. | Srashti | DBT, Amity University, Noida, U.P. |
| 20. | Tarushi Singhal | Central University of Punjab [Joint Science Academies Summer Research Fellowship for 2019 (Indian Academy of Sciences)] |

Trainees at Scientist level

- | | | |
|-----|---------------------------|---|
| 1. | Abhijit Kumar Das | Scientist, ICAR-Indian Institute of Maze Research, Ludhiana, Punjab |
| 2. | Archana G. Prasanna | Assistant Professor, Kalasalingam Academy of Research and Education, Tamil Nadu |
| 3. | Archita Singh | DST-NPDF, ICAR-NRCPB, New Delhi |
| 4. | Jyotsna Tilgam | Scientist, ICAR-DBAIM, Uttar Pradesh |
| 5. | Muthamilarasan M. | DST Inspire Faculty, ICAR-NIPB, New Delhi |
| 6. | N. Radhakrishnan | Assistant Professor, University of Madras, Chennai |
| 7. | Reno Tryono | Research Officer, Plant Protection and Biotechnology, Indonesia |
| 8. | Shalini Mukherjee | Volunteer Researcher, NIPGR |
| 9. | Sumbul Afreen | DST-NPD, IIT, New Delhi |
| 10. | Tolulope Omotope Omolekan | University of Ibadan, Nigeria |
| 11. | Upeksha T.G. U. | Assistant Professor, Kalasalingam Academy of Research and Education, Tamil Nadu |

Grant-in-Aid Schemes

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
1	Prof. Asis Datta	Biotechnological approaches to improve nutritional and post-harvest quality, drought tolerance and pathogen resistance in edible crops	DBT Govt. of India
2	Prof. Asis Datta	Decoding the N-acetylglucosamine signalling pathway in microbial pathogens for disease control	CSIR Govt. of India
3	Dr. Niranjan Chakraborty	Functional analysis of candidate abiotic stress responsive genes "Challenge Programme on Chickpea Functional Genomics"	DBT Govt. of India
4	Dr. Niranjan Chakraborty	Comparative proteomics of chickpea plasma membrane and functional characterization of dehydration-responsive candidate genes	DST Govt. of India
5	Dr. Subhra Chakraborty	Understanding seed nutrient dynamics by system biology approach "Challenge Programme on Chickpea Functional Genomics"	DBT Govt. of India
6	Dr. Subhra Chakraborty	Elucidating stress-responsive pathways by comparative proteome mining in legume and cereals	DST Govt. of India
7	Dr. Subhra Chakraborty	Advanced Inter-Institutional Proteomics Facility-Advanced Research Platform for Crop Sciences	DBT Govt. of India
8	Dr. Subhra Chakraborty	Understanding PTI and ETI in plant-hemibiotrophic fungal interaction through secretome and interaction proteomics studies	DBT Govt. of India
9	Dr. Subhra Chakraborty	Understanding mechanistic detail of growth promotion and stress tolerance in legume and cereal crops by fungal endophyte through secretome and metabolomics study	DBT Govt. of India
10	Dr. Subhra Chakraborty	Development of integrated multi-omics analysis platform, and its application to elucidate the differential process of silk colouration in the Muga silkworm <i>Antheria assamensis</i> Heifer	DBT Govt. of India
11	Dr. Subhra Chakraborty	Deciphering role(s) of post-translational modifications and chromatin regulation of immunity in rice	SERB Govt. of India
12	Dr. Subhra Chakraborty	J. C. Bose Fellowship	SERB Govt. of India
13	Dr. Debasis Chattopadhyay	TATA Innovation Fellowship: Association of transcript polymorphic simple sequence repeats, SNPs and microRNAs with agronomic traits in chickpea	DBT Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
14	Dr. Alok Krishna Sinha	Editing MPK3, a mitogen activated protein kinase gene using CRISPER/Cas9 tool in rice to study the role of gene in cell cycle and grain yield	DBT Govt. of India
15	Dr. Alok Krishna Sinha	Generation of transgenic rice in scented varieties of North Eastern Region for yield enhancement	DBT Govt. of India
16	Dr. Alok Krishna Sinha	TATA Innovation Fellowship: Investigation of the role of mitogen activated protein kinase in rice yield	DBT Govt. of India
17	Dr. Alok Krishna Sinha	Investigation of the molecular mechanism of MKK3-MPK6-MYC2 module in Arabidopsis seedling development	DST Govt. of India
18	Dr. Alok Krishna Sinha	Gene Functional Analysis Platform for Crops-Advanced Research Platform for Crop Sciences	DBT Govt. of India
19	Dr. Sabhyata Bhatia	Dissecting molecular mechanisms involved in chickpea seed development "Challenge Programme on Chickpea Functional Genomics"	DBT Govt. of India
20	Dr. Sabhyata Bhatia	Exploring transcriptome dynamics of chickpea development for candidate gene discovery and defining regulatory elements/modules "Challenge Programme on Chickpea Functional Genomics"	DBT Govt. of India
21	Dr. Sabhyata Bhatia	Generating genomic resources for facilitating genetic enhancement of selective Vigna species and Horse gram- Genetic Enhancement of Minor Pulse	DBT Govt. of India
22	Dr. Praveen Verma	Understanding genetic and molecular basis of Ascochyta blight resistance in chickpea "Challenge Programme on Chickpea Functional Genomics"	DBT Govt. of India
23	Dr. Manoj Prasad	National Bioscience Award: Genome-wide association study of yield contributing agronomic traits in foxtail millet (<i>Setaria italica</i> (L.) BEAUV)	DBT Govt. of India
24	Dr. Manoj Prasad	Identification and characterization of novel genes and alleles contributing for resistant starch traits in foxtail millet	DST Govt. of India
25	Dr. Manoj Prasad	J.C. Bose fellowship	DST Govt. of India
26	Dr. Manoj Prasad	Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality" under mission programme of "Characterisation of Genetic Resources", Sub Project- I: "Germplasm genomics for trait discovery"	DBT Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
27	Dr. Jitendra K. Thakur	Functional Analysis of a Mediator Subunit Gene, Med17, in Rice and Arabidopsis	DBT Govt. of India
28	Dr. Jitendra K. Thakur	Understanding the Functional Significance of Med15, an Important Mediator Subunit, in Plants	DST Govt. of India
29	Dr. Jitendra K. Thakur and Dr. Shailesh Kumar (Scientist Incharge)	Establishment of Distributed Information Sub-Centre (DISC)	DBT Govt. of India
30	Dr. Gitanjali Yadav	Biological Invasion: Linking Phytochemical Dynamics of India's Most Aggressive Plant Invader to Genomic Adaptations	DST Govt. of India
31	Dr. Gitanjali Yadav	Characterization of 3-Hydroxy-3-methylglutaryl co-enzyme A reductase (HMGR) gene family in <i>Cicer arietinum</i> , and its role in abiotic stress	CSIR Govt. of India
32	Dr. Gitanjali Yadav	Identification, diversity functional roles of host-encoded resistance in vector borne plant RNA viruses	DBT Govt. of India
33	Dr. Gitanjali Yadav	Transforming India's Green Revolution by Research and Empowerment for Sustainable food Supplies" (TIGR2ESS)	University of Cambridge Govt. of UK
34	Dr. Ashverya Laxmi	To study the role of glucose and its interaction with hormones in controlling shade stress response in <i>Arabidopsis</i> and Tomato	DBT Govt. of India
35	Dr. Ashverya Laxmi	National Women Bio-Scientist Award- To study the interaction between glucose and salicylic acid signal transduction pathway in model plant <i>Arabidopsis thaliana</i>	DBT Govt. of India
36	Dr. ManojMajee	National Bioscience Award: Investigation of chemical war between isoASp mediated protein damage and repair in seed towards understanding seed deterioration during aging and seed storage	DBT Govt. of India
37	Dr. Naveen C. Bisht	Investigating the roles of heterotrimeric G-protein components (G and RGS) towards governing agronomical traits and abiotic stress tolerance in India oilseed mustard	DST Govt. of India
38	Dr. Naveen C. Bisht	Biofortification of branched chain amino acid-leucine in Brassica crops using CRISPR-Cas9 mediated genome editing	DBT Govt. of India
39	Dr. Naveen C. Bisht	To perform event selection under small scale open field growth condition and substantial equivalence test of the low glucosinolate brassica juncea transgenic lines	BIRAC Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
40	Dr. Naveen C. Bisht	Nutritional Improvement of Indian Oilseed Mustard Using CRISPR-Cas9 Mediated Genome Editing	DBT Govt. of India
41	Dr. Naveen C. Bisht	Genomics-led improvement of biotic and abiotic stress tolerance in mustard rape for economic and environmental sustainability	DBT Govt. of India
42	Dr. Naveen C. Bisht	Special Project on COVID-19	DBT Govt. of India
43	Dr. Jagadis Gupta Kapuganti	Hypoxia- induced nitric oxide as a tool in protection of plants under flooding and pathogen attack	DBT Govt. of India
44	Dr. Jagadis Gupta Kapuganti	Ramalingaswami Fellowship	DBT Govt. of India
45	Dr. Jagadis Gupta Kapuganti	Alternative oxidase as a tool to increase nitrogen use efficiency and growth under nitrogen limitation	DST Govt. of India
46	Dr. Jagadis Gupta Kapuganti	Nitric oxide signaling in response to Botrytis cinerea infection tomato fruits	DBT Govt. of India
47	Dr. Jagadis Gupta Kapuganti	Unravelling the interaction of mineral nutrition (N and K) and vitamin B6 metabolism for sustainable agricultural practices	INDO-SWISS joint research project
48	Dr. Jagadis Gupta Kapuganti	Functional elucidation of serine hydroxyl methyl transferase 6 and 7 during plant resistance against pathogen infection	DST Govt. of India
49	Dr. Jagadis Gupta Kapuganti	Alternative oxidase – a tool to increase biomass productivity under temperature and flooding stress	DST Govt. of India
50	Dr. Jagadis Gupta Kapuganti	Using foldscope to investigate reactive oxygen and nitric oxide signaling during plant pathogen interaction	DBT Govt. of India
51	Dr. Jagadis Gupta Kapuganti	The role of phytoglobin-nitric oxide cycle in oxygen sensing and plasticity of mitochondrial response to low oxygen stress in plants	SERB Govt. of India
52	Dr. Ananda K. Sarkar	Identification and Characterization of MicroRNAs Regulating Embryonic Shoot and Root Meristems	DBT Govt. of India
53	Dr. Ananda K. Sarkar	Molecular and biochemical dissection of SWP1 function, and its implication in plant development	DST Govt. of India
54	Dr. Saloni Mathur	Comparative analysis of the epigenetic landscape to heat stress adaptation in two contrasting tomato cultivars	DST Govt. of India
55	Dr. Gopaljee Jha	Simple, quick and onsite diagnostic kit for pathogen detection in asymptomatic stage	DBT Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
56	Dr. Gopaljee Jha	Genome engineering to upscale the production of a broad spectrum anti-fungal protein Bg_9562 in <i>Escherichia Coli</i>	DBT Govt. of India
57	Dr. Gopaljee Jha	Imparting sheath blight disease tolerance in rice	DBT Govt. of India
58	Dr. Gopaljee Jha	NCR Cluster Project: Establishing the mechanism of action of the broad-spectrum antifungal protein Bg_9562	IPGR Grant
59	Dr. Senthil Kumar Muthappa	Identification of genes contributing resistance to <i>Alternaria brassicae</i> from a nonhost plant and their characterization in <i>Arabidopsis</i> for durable crop protection against blight disease in <i>Brassica rapa</i>	DBT Govt. of India
60	Dr. Senthil Kumar Muthappa	Drought and wilt disease causing pathogen interaction in tomato plants: dissecting molecular responses using VIGS	DBT Govt. of India
61	Dr. Senthil Kumar Muthappa	Identification of host factors responsible for infection and development of nano-particle based dsRNA delivery system for imparting resistance to begomoviruses	ICAR Govt. of India
62	Dr. Senthil Kumar Muthappa	Development of integrated multi-omics database for understanding combined stress tolerance in plants	SERB Govt. of India
63	Dr. Jitender Giri	Manipulation of citrate biosynthesis and transport for improved low phosphate tolerance in rice	INSA Govt. of India
64	Dr. Jitender Giri	Investigating the role of phospholipid remodeling in low phosphate tolerance in rice	DST Govt. of India
65	Dr. Jitender Giri	Understanding the molecular regulation of root hair development in chickpea for crop improvement	DBT Govt. of India
66	Dr. Jitender Giri	Beyond transgenic plants: use of precise genome editing for improving plant growth under low phosphorus input	INDO-SWISS joint research project
67	Dr. Jitender Giri	Unlinking phosphate deficiency responses from their adverse effects on growth in rice	DST Govt. of India
68	Dr. Jitender Giri	Improving crop yield in dry and nutrient-poor soil via more resilient rice varieties	Govt. of UK
69	Dr. Swarup K. Parida	Integrated genomic strategy for accelerating domestication of rice bean (<i>Vigna umbellata</i>)-Genetic Enhancement of Minor Pulse	DBT Govt. of India
70	Dr. Pinky Agarwal	Transcriptional repressors as friends or foes: Utilization to increase seed size in rice	SERB Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
71	Dr. Jyothilakshmi Vadassery	Calcium regulated plant defense strategies upon insect pest attack	MPGI Govt. of Germany
72	Dr. Jyothilakshmi Vadassery	Calcium regulated plant defense strategies upon insect pest attack	DST Govt. of India
73	Dr. Jyothilakshmi Vadassery	Identification of effector proteins from generalist herbivore <i>Spodoptera littura</i> and its targets in <i>Arabidopsis</i>	DST Govt. of India
74	Dr. Jyothilakshmi Vadassery	Understanding the role of calcium ion channels in plant defense against <i>Spodoptera litura</i> herbivore	DBT Govt. of India
75	Dr. Jyothilakshmi Vadassery	Plant analytical Platform for Phytohormones and low abundant Molecules- Advanced Research Platform for Crop Sciences	DBT Govt. of India
76	Dr. Jyothilakshmi Vadassery	Development of sustainable management tools for the invasive pest, Fall Armyworm <i>Spodoptera frugiperda</i> (J. E. Smith) in maize	ICAR Govt. of India
77	Dr. Jyothilakshmi Vadassery	Deciphering the first structure of plant cyclic nucleotide-gated channel: Studies on CNGC19, a key player in defense against herbivory	NIPGR Grant
78	Dr. Aashish Ranajan	Ramalingaswami Fellowship	DBT Govt. of India
79	Dr. Aashish Ranajan	Genetic Understanding and manipulation of sucrose transport to increase the rice yield	DBT Govt. of India
80	Dr. Aashish Ranajan	Comprehensive characterization of PIF-family of transcription factors for abiotic stress signaling in crop plants	DST Govt. of India
81	Dr. Aashish Ranajan	Characterization of Genetic Resources: Mainstreaming rice landraces diversity in varietal development through genome-wide association studies: A model for large scale utilization of gene bank collections of rice	DBT Govt. of India
82	Dr. Senjuti Sinharoy	Ramalingaswami Fellowship	DBT Govt. of India
83	Dr. Senjuti Sinharoy	Determination the role of (Cysteine- Rich Secretory Proteins, Antigen 5, and Pathogenesis-Related 1 Proteins (CAP) during <i>Arachis- Bradyrhizobium</i> symbiosis	DBT Govt. of India
84	Dr. Senjuti Sinharoy	Understanding the role of nodule specific PIN-LIKES (PILS) protein in peanut root nodule development	DST Govt. of India
85	Dr. Amar Pal Singh	Understanding hormonal regulation of root growth plasticity to increase plant productivity under low	DBT Govt. of India

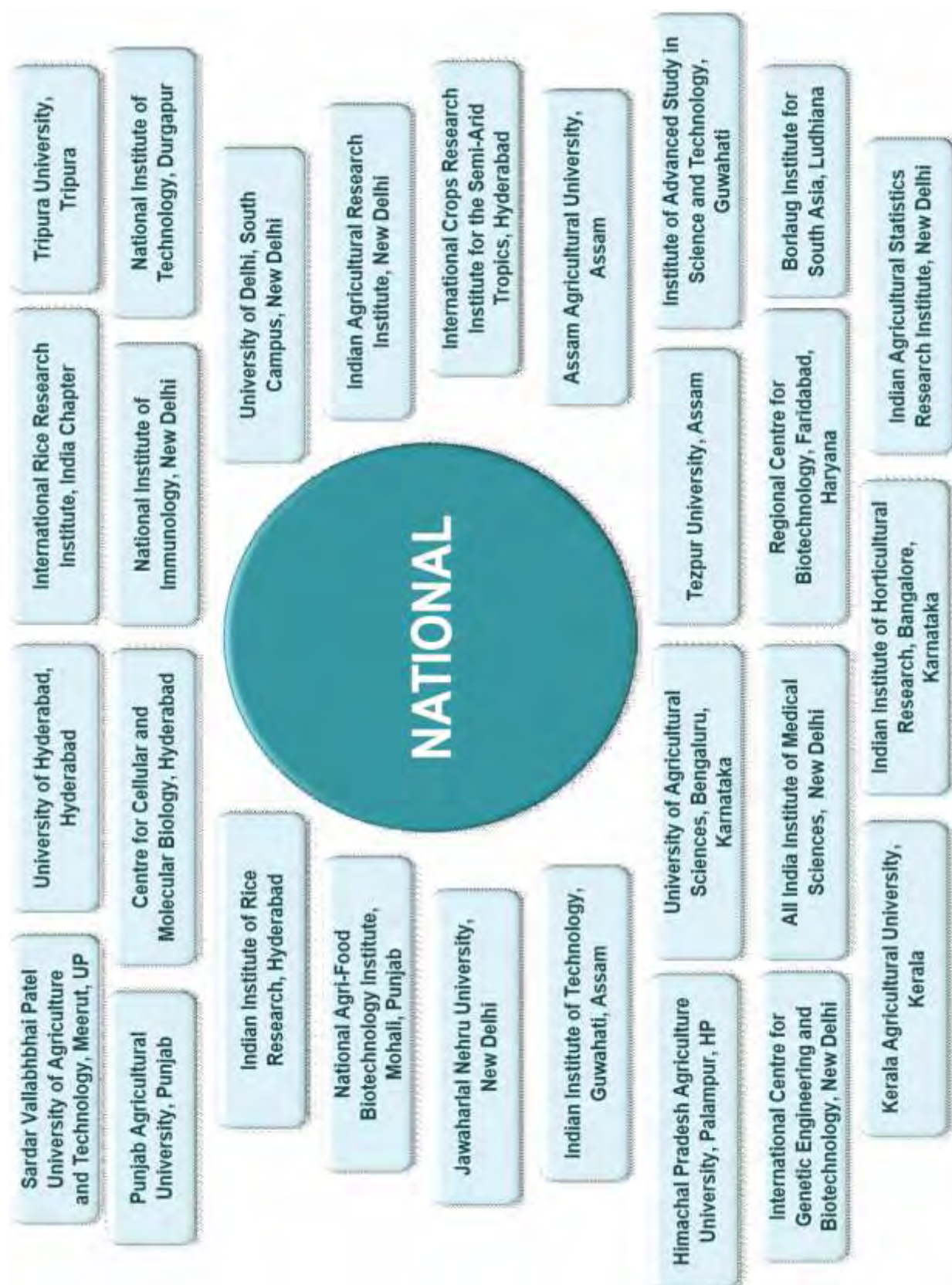
Sl. No	Investigator / Co-Investigator	Title of the Scheme	Funded by
		nitrogen availability in tomato (<i>Solanum lycopersicum</i>)	
86	Dr. Amar Pal Singh	Physiological and molecular characterization of root developmental plasticity under low nitrogen availability	DST Govt. of India
87	Dr. Amarjeet Singh	Deciphering Jasmonic Acid Biosynthesis pathway and its Role in potassium (K ⁺) Deficiency Tolerance in Chickpea (<i>Cicer arietinum</i>)	DST Govt. of India
88	Dr. Shailesh Kumar	Genome-wide identification and characterization of fusion event in different plant species	SERB Govt. of India
89	Dr. Shailesh Kumar	Genome-wide identification and characterization of transfer RNA derived fragments (tRFs) in chickpea	SERB Govt. of India
90	Dr. Ashutosh Pandey	Elucidation of metabolic channeling at the entry point into the phenylpropanoid pathway in Musa species: Functional characterization of phenyl alanine ammonia lyase gene family	INSA Govt. of India
91	Ms. Poonam Mishra (WOS-A Scheme)	Role of SUN1 (Sad/1UNC-84) domain protein from Chickpea and its orthologue from Arabidopsis in dehydration Stress	DST Govt. of India
92	Dr. Anuj Dwivedi (NPDF)	Identification of effector genes during biotrophic and necrotrophic phases of Bipolaris sorokiniana and wheat (<i>Triticum aestivum</i>) interaction	DST Govt. of India
93	Dr. Manish Kumar Patel (NPDF)	Integrated analysis of metabolomics and transcriptomic to elucidate the flavonoid biosynthesis pathway in hadjod (<i>Cissus quadrangularis L.</i>)	DST Govt. of India
94	Dr. Shalini Mukherjee (NPDF)	Functional characterization of selected OsSWEET gene(s) for role in root development and nutrient acquisition/stress	DST Govt. of India
95	Dr. Sudip Ghosh (NPDF)	Comprehensive Organ-Specific Development Proteome Analysis of Chickpea (<i>Cicer arietinum</i>)	DST Govt. of India
96	Dr. Priyanka Dhakate (NPDF)	Identification and characterization of non-coding RNAs (miRNAs and lncRNAs) governing seed development in chickpea	DST Govt. of India
97	Dr. Swati Verma (NPDF)	Possible role of small RNAs in regulating gene expression during various stages of bud dormancy release in apple	DST Govt. of India

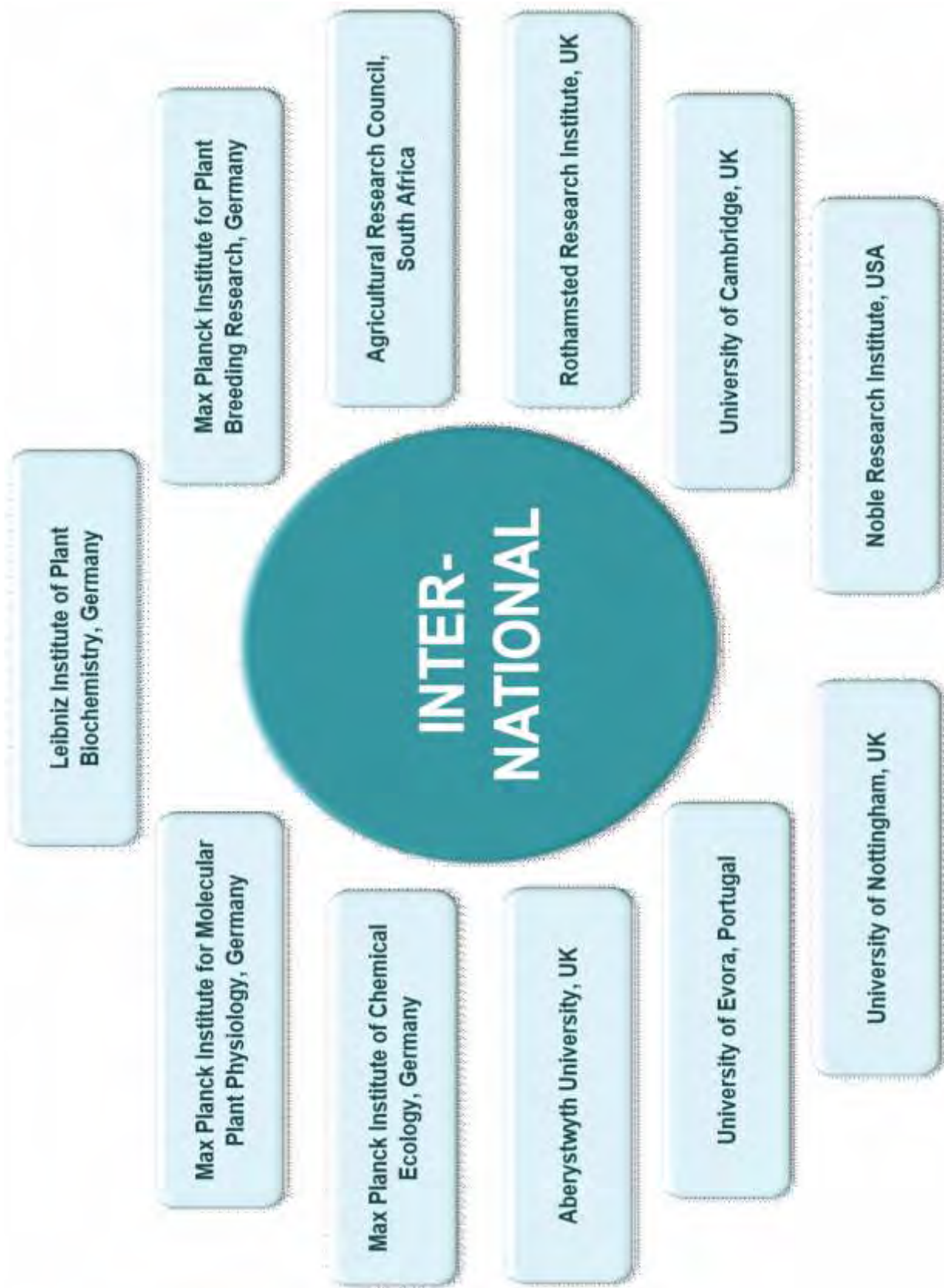
Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
98	Dr. Ayan Das (NPDP)	Development of Tomato Leaf Curl New Delhi Virus (ToLCNDV) resistance in tomato using Crispr/Cas9 technology	DST Govt. of India
99	Dr. Abhimanyu Jogawat (NPDP)	Analysis of calcium regulated signaling during symbiotic interaction between <i>Arabidopsis thaliana</i> - <i>Piriformospora indica</i>	DST Govt. of India
100	Dr. Shweta (NPDP)	Global analysis of tomato leaf curl disease induced alternative splicing in tomato	DST Govt. of India
101	Dr. Shubhendu Shekhar (NPDP)	Proteomic characterization of tuber development and nutrient acquisition in sweet potato [<i>Ipomoea batatas</i> (L.) Lam]	DST Govt. of India
102	Dr. Sayanti Kundu (Bio-CARE Scheme)	Study of vascular wilt responsive proteome in chickpea- fusarium	DBT Govt. of India
103	Dr. Hema Ramanna (WOS-A Scheme)	Functional characterization of cell wall related genes in lignocellulosic biofuel crop model <i>Setaria viridis</i> by VIGS	DST Govt. of India
104	Dr. Verandra Kumar (NPDP)	To decipher the histone acetylation dynamics during drought stress in <i>Setaria italica</i>	DST Govt. of India
105	Dr. Priyanka Agarwal (NPDP)	Characterization of regulatory network of transcription factors showing cultivar specific drought response in rice	DST Govt. of India
106	Dr. Shikha Rani (NPDP)	Characterization and database development of heat stress responsive long non-coding RNAs from two contrasting cultivars of tomato	DST Govt. of India
107	Dr. Mamta Rani (NPDP)	Exploring the role of Gamma-amino butyric acid pathway and L-Myo-inositol-1-phosphate synthase for molecular intervention strategies against sheath blight disease of rice	DST Govt. of India
108	Dr. Bendangchuchang Longchar (NPDP)	Virus-induced gene silencing-based investigation of the effects of drought stress on tomato plant resistance to the wilt pathogen, <i>Ralstonia solanacearum</i>	DST Govt. of India
109	Dr. Raghvendra Kumar Mishra (Teachers Associateship for Research Excellence Scheme)	Large scale development of ILP markers in pea (<i>Pisum Sativum</i>) and their potential utility in mapping, diversity and transferability analysis	SERB Govt. of India
110	Dr. Nandita Pasari (BioCARE Women Scientist)	Elucidating the role of small RNA based effectors involved in root colonization of a growth promoting endophytic fungus <i>Piriformospora indica</i> in chickpea	DBT Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
111	Dr. Neetu Verma (BioCARE Women Scientist)	Analysis of Phytochrome Interacting Factor (PIF4) and Histone Variant (H2A.Z)- Mediated Themosensory Regulatory Network in Arabidopsis Thaliana	DBT Govt. of India
112	Dr. Namisha Sharma (DST-Women Scientist)	Integrating omics approaches to understand the molecular mechanism underlying plants' response to Tomato Leaf Curl disease	SERB Govt. of India
113	Dr. Ravi Ranjan Saxena (NPDF)	mQTL-seq approach for identification of responsible genomic regions for spot blotch resistance in bread wheat and development of markers for molecular breeding	SERB Govt. of India
114	Dr. Alim Junaid (NPDF)	CRISPER/Cas engineering of Med15 for increasing rice grain length	SERB Govt. of India
115	Dr. Malleshram Bulle (NPDF)	The role of non-symbiotic haemoglobin, nitrate nutrition to increase energy efficiency under hypoxia in rice and wheat	SERB Govt. of India
116	Dr. Dharendra Fartyal (NPDF)	Dissecting the crucial role and mechanism of PAP3C enzyme, a Purple AcidPhosphatase, in phosphate metabolism in transgenic rice plants	SERB Govt. of India
117	Dr. Chitra Bhatia (NPDF)	Exploring the role of post-translational modification of jasmonate signaling genes in low phosphate tolerance	SERB Govt. of India
118	Dr. Janesh Kumar Gautam (NPDF)	Understanding the molecular crosstalk between early Spodoptera perception and Jasmonate biosynthesis	SERB Govt. of India
119	Dr. Kumud Saini (NPDF)	Deciphering the role of auxin-brassinosteroid crosstalk in the leaf development cascades under adverse environmental conditions	SERB Govt. of India
120	Dr. Vineet Gaur	Ramalingaswami Fellowship	DBT Govt. of India



Collaborating/ Interacting Institutions







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Shri Sandeep Datta

Controller of Administration
NIPGR, New Delhi
(Non-Member Secretary)

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Distinguished Professor & J. C. Bose
National Fellow,
UM-DAE- Centre for Excellence in Basic
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Deputy Director General (Crop Science)
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Pusa, New Delhi

Dr. (Mrs.) Usha Barwale

Maharashtra Hybrid Seeds Co. Ltd.
4th Floor, 78, Veer Nariman Road, Mumbai

Dr. Kuldeep Singh

Director
National Bureau Plant Genetic Resources
(NBPGR), PUSA Campus, New Delhi

Dr. Usha VijayaRaghavan

Professor, Department of Microbiology and
Cell Biology, Indian Institute of Science
Bangalore

Dr. Meenakshi Munshi

Scientist 'G',
Department of Biotechnology
Ministry of Science and Technology
Government of India, New Delhi

Dr. Ramesh V. Sonti

Director, NIPGR
New Delhi (Member-Secretary)

Academic Committee

(April 01 2019 to February 21, 2020)

Dr. Ramesh V. Sonti

Director, NIPGR
New Delhi
(Chairman)

Dr. Rupesh Chaturvedi

School of Biotechnology
Jawaharlal Nehru University, New Delhi

Prof. Kasturi Mukhopadhyay

School of Environmental Sciences
Jawaharlal Nehru University, New Delhi

Prof. M. K. Pandit

Department of Environmental Studies
University of Delhi, New Delhi

Prof. Shailendra Goel

Department of Botany
University of Delhi, New Delhi

Dr. Praveen Verma

Scientist, NIPGR
New Delhi

Dr. Ashverya Laxmi

Scientist, NIPGR
New Delhi

Prof. Satish Chandra Garkoti

Rector -II
Jawaharlal Nehru University
New Delhi

(February 22, 2020 to March 31, 2020)

Dr. Ramesh V. Sonti

Director, NIPGR
New Delhi
(Chairman)

Prof. Pawan K. Dhar

Dean
School of Biotechnology
Jawaharlal Nehru University
New Delhi – 110067

Prof. Vibha Tandon

Special Centre for Molecular Medicine
Jawaharlal Nehru University
New Delhi – 110067

Prof. Inderjit Singh

Departmental of Environmental Studies
University of Delhi
Delhi – 110007

Dr. Neel Sarovar Bhavesh

Group Leader
International Centre for Genetic Engineering
and Biotechnology (ICGEB)
New Delhi

Dr. Praveen Verma

Scientist, NIPGR
New Delhi

Dr. Ashverya Laxmi

Scientist, NIPGR
New Delhi

Prof. Satish Chandra Garkoti

Rector-II
Jawaharlal Nehru University
New Delhi
(Special Invitee)

Building Committee

Dr. Dinakar M. Salunke

Executive Director
ICGEB, New Delhi
(Chairman)

Prof. Rakesh Bhatnagar

Vice Chancellor
Banaras Hindu University
Varanasi, Uttar Pradesh

Shri Harendra Singh

Executive Engineer
National Institute of Immunology
New Delhi, India

M/s. S. D. Sharma and Associates

Institute's Architect
Panchkula (Haryana)

Shri Sunil Kumar Sharma

Consultant Engineer
NIPGR, New Delhi

Shri Sandeep Datta

Controller of Administration
NIPGR, New Delhi
(Member-Secretary)

Institutional Biosafety Committee

Dr. Ramesh V. Sonti

Director, NIPGR
New Delhi (Chairman)

Dr. M. K. Reddy

International Centre for Genetic Engineering
and Biotechnology (ICGEB), New Delhi

Prof. Alok Bhattacharya

Ashoka University
Sonapat, Haryana

Prof. M. V. Rajam

University of Delhi South Campus (UDSC)
New Delhi

Dr. Subrata Sinha

All India Institute of Medical Science (AIIMS)
New Delhi

Dr. Naveen Chandra Bisht

Scientist, NIPGR
New Delhi

Dr. Senthil K. Muthappa

Scientist, NIPGR
New Delhi

Dr. Senjuti Sinharoy

Scientist, NIPGR
New Delhi

Dr. Subhra Chakraborty

Scientist, NIPGR
New Delhi
(Member-Secretary)

Staff of the Institute

Scientific Staff

1. Dr. Ramesh V. Sonti, Director
2. Prof. Asis Datta, Distinguished Emeritus Scientist
3. Dr. Niranjana Chakraborty, Professor of Eminence
4. Dr. Subhra Chakraborty, Scientist VII
5. Dr. Debasis Chattopadhyay, Scientist VII
6. Dr. Alok Krishna Sinha, Scientist VII
7. Dr. Sabhyata Bhatia, Scientist VII
8. Dr. Manoj Prasad, Scientist VII
9. Dr. Praveen Verma, Scientist VI
10. Dr. Jitendra Kumar Thakur, Scientist V
11. Dr. Gitanjali Yadav, Scientist V
12. Dr. Ashverya Laxmi, Scientist V
13. Dr. Manoj Majee, Scientist V
14. Dr. Naveen Chandra Bisht, Scientist V
15. Dr. Jagadish Gupta Kapuganti, Scientist V
16. Dr. Ananda Kumar Sarkar, Scientist V
17. Dr. Gopaljee Jha, Scientist IV
18. Dr. Senthil K. Muthappa, Scientist IV
19. Dr. Saloni Mathur, Scientist IV
20. Dr. Jitender Giri, Scientist IV
21. Dr. Swarup K. Parida, Scientist IV
22. Dr. Pinky Agarwal, Scientist IV
23. Dr. Jyothilakshmi Vadassery, Scientist IV
24. Dr. Aashish Ranjan, Scientist IV
25. Dr. Senjuti Sinharoy, Scientist III
26. Dr. Amarpal Singh, Scientist III
27. Dr. Amarjeet Singh, Scientist II
28. Dr. Shailesh Kumar, Scientist II
29. Dr. Ashutosh Pandey, Scientist II
30. Dr. Vineet Gaur, Ramalingaswamy Fellow

Technical Staff

1. Ms Umamaheswari Rajamani, Senior Technical Officer
2. Shri Prem Singh Negi, Senior Technical Officer
3. Shri Sunil Kumar, Senior Technical Officer
4. Shri Sunil Kumar Avasthi, Senior Technical Officer
5. Dr. Santosh Kumar Gupta, Senior Technical Officer
6. Shri Arun Kumar, Senior Technical Officer & Central Public Information Officer (CPIO)
7. Dr. Bhavnesh Kumar, Senior Technical Officer
8. Shri Ravi Kant Singh, Senior Technical officer
9. Shri Shobharam Valmeeki, Senior Technical Officer
10. Shri Neeraj Nim, Senior Programmer
11. Shri Shankar Acharya, Technical Officer
12. Shri C. Ravi Shankar, Technical Officer
13. Shri Anand Singh Rana, Technical Officer
14. Shri Ashok Kumar, Technical Officer
15. Shri Rajendra, Technical Officer
16. Shri Dinesh Mehta, Technical Officer
17. Shri Naveen Kumar Sudda, Technical Officer
18. Shri Ratneshwar Thakur, Technical Officer
19. Shri Subhasish Mondal, Technical Officer
20. Shri Shailendra Kharwal, Technical Officer
21. Shri Anand Dangi, Technical Officer
22. Shri Mohit, Technical Assistant
23. Shri Brihaspati Narayan Shukla, Technician I
24. Shri Arabinda Das, Multi-Tasking Staff
25. Shri P. K. Mishra, Multi-Tasking Staff
26. Shri Tul Bahadur Thapa, Multi-Tasking Staff
27. Ms Neeta Maurya, Multi-Tasking Staff
28. Shri Mahender Singh, Multi-Tasking Staff

Administrative & Finance Staff

1. Shri Sandeep Datta, Controller of Administration
2. Dr. Vinod Kumar Sharma, Librarian cum Documentation Officer
3. Shri Rajinder Raina, Purchase cum Stores Officer
4. Shri Sudhir Patwal, Administrative Officer
5. Shri Rakesh Mohan, Finance Officer
6. Shri Sunil Kumar Sharma, Consultant Engineer
7. Shri Kamal Kumar, PS to Director
8. Ms Vinita Sharma, Section Officer
9. Ms Rajani Aswal, Section Officer
10. Ms Sonali, Assistant Section Officer
11. Shri Tapas Shit, Assistant Section Officer
12. Shri Mitesh Raj Bhardwaj, Assistant Section Officer
13. Shri Achint Gupta, Assistant Section Officer
14. Shri Devender Singh Bhandari, Assistant
15. Shri Om Prakash Sah, Junior Hindi Translator
16. Shri Ramesh Singh, Junior Assistant
17. Shri Hari Singh Negi, Junior Assistant
18. Shri Vipin Goyal, Hindi Typist
19. Shri Kuldeep Singh, Driver
20. Shri Bhargunath Manjhi, Multi-Tasking Staff
21. Shri Manmohan Singh Rawat, Multi-Tasking Staff

**Budget/
Auditor's Reports &
Audited Accounts**

Budget

The Financial resources of the National Institute of Plant Genome Research are the core grant provided by the Govt. of India, Department of Biotechnology, comprising of Grants for creation of Capital Assets, Grants-in-Aid Salaries and Grants-in-Aid General.

The Department of Biotechnology in their projections for financial year 2019-2020 have allocated grant of ₹4824.00 lakhs including ₹600.00 lakhs for infrastructure facilities in respect of NIPGR. The source and application of funds during the financial year 2019-2020 in respect of Institute is as under:

Sources of Funds

The Govt. of India, Department of Biotechnology, released grants of ₹4824.00 lakhs during 2019-2020 as detailed below:

Grants for Creation of Capital Assets	₹600.00 lakhs
Grants-in-Aid Salaries	₹1224.00 lakhs
Grants-in-Aid General	₹3000.00 lakhs

Besides, the Institute has earned, an interest of ₹1,57,67,733/- on bank deposits of the Institute and miscellaneous receipts including User Charges & Overhead Charges of ₹58,96,337/- during the year, apart from the opening balance of ₹7,80,26,825/- carried forward from previous year.

Application of Funds

(As per Utilization Certificate furnished to the Department of Biotechnology for the year 2019-2020)

The total expenditure on research activities and infrastructure development during the year 2019-2020 was ₹45,18,18,461/- including ₹4,73,82,551/- on infrastructure development and refund of Interest of ₹2,12,69,769/- to DBT

OVER ALL EXPENDITURE AT A GLANCE

<u>A-Grants for creation of Capital Assets</u>		Amount in ₹
1. Land & Building		2,10,00,000
2. Equipment		2,07,57,104
3. Furniture & Fixtures		5,55,029
4. Books/Scientific Journals		43,16,743
5. Vehicle		7,53,675
Total =		<u>4,73,82,551</u>
<u>B-Grants-in-Salaries</u>		
1. Manpower		10,74,77,061
Total =		<u>10,74,77,061</u>
<u>C-Grant-in-Aid General</u>		
1. Consumables		5,43,38,873
2. Contingencies		18,02,26,696
3. Training/Networking/Fellowship		2,34,99,326
4. Campus/Field Development		1,58,09,190
5. Travel		18,14,995
Total =		<u>27,56,89,080</u>
<u>D- Refund of Interest to DBT</u>		
		<u>2,12,69,769</u>
Closing balance at the end of the year 2019-2020		<u>11,45,04,701</u>

INDEPENDENT AUDITOR'S REPORT

To
The Director, NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of **NATIONAL INSTITUTE OF PLANT GENOME RESEARCH**, Aruna Asaf Ali Marg, J.N.U. Campus, New Delhi-110067, which comprise the Balance sheet as at March 31, 2020, Income & Expenditure Account and the Receipts & Payments Account for the year ended on that date, and a summary of significant accounting policies and other explanatory information.

In our opinion and to the best of our information and according to the explanations given to us, the financial statements give a true and fair view in conformity with the accounting principles generally accepted in India.

Basis for Opinion

We conducted our audit in accordance with Standards on Auditing (SAs) issued by Institute of Chartered Accountants of India. Our responsibilities under those Standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the entity in accordance with the ethical requirements that are relevant to our audit of the financial statements, and we have fulfilled our other responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that gives a true and fair view of financial position and financial performance of the Institute in accordance with the Accounting Standards issued by The Institute of Chartered Accountants of India and in accordance with the accounting principles generally accepted in India. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentations of financial statements that gives a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Contd..21

1-E/15, Jhandewalan Extn., New Delhi-110055, India. E-mail : info@vkdc.co
Phones : (91-11) - 23528511, 23638325, 23536857, 23550475, 43539669



: 2 :

A further description of our responsibilities for the audit of the financial statements is included in Annexure – A of this Auditor's Report.

Report on Other Matters

1. We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
2. In our opinion proper books of account as required by law have been kept by the Institute so far as it appears from our examination of those books.
3. The Balance Sheet, the Income & Expenditure Account dealt with by this Report are in agreement with the books of account.
4. In our opinion the aforesaid financial statements comply with the applicable Accounting Standards issued by the Institute of Chartered Accountants of India.

For V. K. DHINGRA & CO.
CHARTERED ACCOUNTANTS
Firm Registration No. : 000250N

(VIPUL GIOTRA)
PARTNER

M. No. : 084312

UDIN: 20084312AAAABA1950

PLACE: NEW DELHI
DATE: SEPTEMBER 08, 2020



Annexure-‘A’ to the Independent Auditor’s Report**Auditor’s Responsibilities**

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

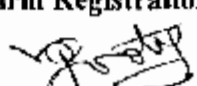
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

PLACE: NEW DELHI
DATE: SEPTEMBER 08, 2020

For V. K. DHINGRA & CO.,
CHARTERED ACCOUNTANTS
Firm Registration No. 000250N


(VIPUL GIROTRA)
PARTNER
M. No. : 084312
UDIN: 20084312AAAABA1950



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
BALANCE SHEET AS ON 31st MARCH 2020

		AMOUNT IN ₹	
LIABILITIES	Schedule	Current Year	Previous Year
Corpus/Capital Fund	1	1,46,06,38,833	1,53,77,26,157
Reserves and Surplus	2	2,17,01,469	1,75,83,767
Earmarked/Endowment Funds	3	7,45,92,194	6,11,48,005
Secured Loans and Borrowings	4	-	-
Unsecured Loans and Borrowings	5	-	-
Deferred Credit Liabilities	6	-	-
Current Liabilities and Provisions	7	30,82,54,884	23,85,12,430
TOTAL		1,86,51,87,380	1,85,49,70,359
ASSETS			
<u>Fixed Assets</u>			
Tangible Assets	8	1,09,70,76,543	70,01,75,223
Intangible Assets	8	1,11,05,798	98,59,144
Investments-From Earmarked/Endowment Funds	9	6,75,43,322	5,94,85,144
Investments- Others	10	-	-
Current Assets, Loans, Advances etc.	11	68,94,61,717	1,08,54,50,848
Miscellaneous Expenditure (to the extent not written off or adjusted)		-	-
TOTAL		1,86,51,87,380	1,85,49,70,359
Significant Accounting Policies and notes on accounts	24		
Contingent Liabilities	-	-	-

Schedules 1 to 24 form the Integral part of Accounts

**AS PER OUR SEPARATE REPORT
OF EVEN DATE ATTACHED.**

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

PLACE: NEW DELHI
DATE: September 08, 2020

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
INCOME & EXPENDITURE FOR THE YEAR ENDED 31st MARCH 2020

		AMOUNT IN ₹	
INCOME	Schedule	Current Year	Previous Year
Income from Sales/ Services	12	-	-
Grants / Subsidies (Recurring)	13	42,24,00,000	35,00,00,000
Fees/ Subscriptions	14	-	-
Income from Investments (Income on Investment from Earmarked/ Endowment Fund)	15	21,15,890	-
Income from Royalty, Publication etc.	16	-	-
Interest Earned	17	5,61,29,951	2,17,08,489
Other Income	18	63,60,216	73,47,474
Deferred Income- Fixed Assets	18	7,84,07,449	8,19,39,477
Increase / (decrease) in stock of Finished goods and works-in-progress	19	-	-
TOTAL (A)		56,54,13,506	46,09,95,440
EXPENDITURE			
Income from Investments (Income on Investment from Earmarked Fund Endowment Fund transferred to NIPGR Fund A/c	15	21,15,890	-
Interest earned transferred to respective Project/ Current Liabilities	17	5,59,28,567	-
Establishment Expenses	20	12,73,08,660	10,60,66,965
Other Administrative Expenses etc.	21	29,55,29,047	25,71,22,680
Prior Period Expenses	21	-	-
Expenditure on Grants, Subsidies etc.	22	-	-
Interest	23	-	-
Depreciation (Net Total at the year-end - corresponding to Schedule-8)		7,84,07,449	8,19,39,477
TOTAL (B)		55,92,89,613	44,51,29,122
Balance being excess of Income over Expenditure (A - B)		61,23,893	1,58,66,318
Balance being excess of Expenditure over Income (B - A)		-	-
Transfer to Special Reserve (Specify each)		-	-
Transfer to / from General Reserve		-	-
BALANCE BEING DEFICIT/ SURPLUS CARRIED TO RESERVES/ SURPLUS		61,23,893	1,58,66,318
Significant Accounting Policies and notes on accounts	24	-	-
Contingent Liabilities		-	-

Schedules 1 to 24 form the Integral part of Accounts

AS PER OUR SEPARATE REPORT
OF EVEN DATE ATTACHED.
For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIOTRA)
PARTNER

PLACE: NEW DELHI
DATE: September 08, 2020

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2020

AMOUNT IN ₹

SCHEDULE 1	Current Year		Previous Year	
<u>CORPUS /CAPITAL FUND</u>				
Grants in Aid Non recurring				
Balance as at the beginning of the year	57,97,73,459		63,17,12,936	
Add: Contributions received during the year	6,00,00,000		3,00,00,000	
Less: Value of project equipments transferred	-		-	
Less : Reduced during the year	7,84,07,449		8,19,39,477	
		56,13,66,010		57,97,73,459
Fixed Assets Fund				
Balance as at the beginning of the year	95,68,96,738		29,41,23,995	
Add: Contributions received during the year	1,85,88,849		69,99,11,429	
Less: Contribution refunded during the year	32,159		5,125	
Add : Value of Project Equipment transferred back	-		-	
Less:Reduced during the year	7,72,36,565		3,71,33,561	
		89,82,16,863		95,68,96,738
Research Fund				
Balance as at the beginning of the year	8,62,696		8,62,696	
Add: Contributions received during the year	-		-	
		8,62,696		8,62,696
Students & Staff Welfare Fund				
Balance as at the beginning of the year	1,93,264		1,93,264	
Add: Contributions received during the year	-		-	
		1,93,264		1,93,264
<u>BALANCE AS AT THE YEAR- END</u>		1,46,06,38,833		1,53,77,26,157

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2020

AMOUNT IN ₹

SCHEDULE 2- RESERVES AND SURPLUS:	Current Year		Previous Year	
1.Capital Reserve:				
As per last Account	-		-	
Addition during the year	-		-	
Less: Deduction during the year	-		-	
		-		-
2.Revaluation Reserve:				
As per last Account	-		-	
Addition during the year	-		-	
Less: Deduction during the year	-		-	
		-		-
3.Special Reserves: 11 ISRFG FUND				
As per last Account	24,05,079		30,29,718	
Addition during the year	-		1,73,880	
Less: Deduction during the year	20,06,191		7,98,519	
		3,98,888		24,05,079
4. General Reserve:				
As per last Account	1,51,78,688		(6,87,630)	
Addition during the year	61,23,893		1,58,66,318	
Less: Deduction during the year	-		-	
Less: Short & Excess	-		-	
		2,13,02,581		1,51,78,688
TOTAL		2,17,01,469		1,75,83,767

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
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(DR. SUBHRA CHAKRABORTY)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2020

AMOUNT IN ₹

SCHEDULE 3A	Current Year		Previous Year	
Fund Debt Employees Provident Fund				
a) Opening balance of the fund	6,11,48,005		5,77,22,487	
b) Additions to the fund				
i) Donations/grant	-		-	
ii) Income from Investments/Savings Account	21,15,890		64,37,979	
iii) Regular Subscription/Refund of Advance received	65,57,800		63,34,100	
iv) Receipt towards Management share & Interest (Deficit only)	54,70,499		2,38,522	
Total (a+b)		7,52,92,194		7,07,33,088
c) Utilization/Expenditure towards objectives of fund	-		-	
i. <u>Capital Expenditure</u>				
* Fixed Assets	-		-	
* Others				
ii <u>Revenue Expenditure</u>				
Advance payment to Subscribers	2,00,000		9,60,000	
Part final withdrawal	5,00,000		-	
Final payment to Subscribers	-		86,25,083	
Total (c)		7,00,000		95,85,083
TOTAL - A (a+b-c) (Annexure-139)		7,45,92,194		6,11,48,005

AMOUNT IN ₹				
SCHEDULE 3B	Current Year		Previous Year	
11th International Symposium on Rice Functional Genomics				
a) Opening balance	-		-	
b) Funds received during the year	-		-	
c) Interest received	-		-	
Total (a+b)		-		-
a) Utilization/Expenditure towards Organization of Symposium	-		-	
b) Fund transferred to NIPGR Specific Fund A/c	-		-	
Total (c)		-		-
TOTAL-B (a+b-c)		-		-
TOTAL (3A+3B)		7,45,92,194		6,11,48,005

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2020

AMOUNT IN ₹

<u>SCHEDULE 4-</u> <u>SECURED LOANS AND BORROWINGS:</u>	Current Year		Previous Year	
1. Central Government	-		-	
2. State Government (Specify)	-		-	
3. Financial Institutions				
a) Term Loans	-		-	
b) Interest accrued and due	-		-	
4. Banks:				
a) Term Loans	-		-	
-Interest accrued and due	-		-	
b) Other Loans (Specify)	-		-	
-Interest accrued and due	-		-	
5. Other Institutions and Agencies	-		-	
6. Debentures and Bonds	-		-	
		-		-
<u>TOTAL</u>		-		-

AMOUNT IN ₹

<u>SCHEDULE 5-</u> <u>UNSECURED LOANS AND BORROWINGS</u>	Current Year		Previous Year	
1. Central Government	-		-	
2. State Government (Specify)	-		-	
3. Financial Institutions	-		-	
4. Banks:				
a) Terms Loans	-		-	
b) Other Loans (Specify)	-		-	
5. Other Institutions and Agencies	-		-	
6. Debentures and Bonds	-		-	
7. Fixed Deposits	-		-	
8. Others (Specify)	-		-	
		-		-
<u>TOTAL</u>		-		-

AMOUNT IN ₹

<u>SCHEDULE-6</u> <u>DEFERRED CREDIT LIABILITIES</u>	Current Year		Previous Year	
a. Acceptances secured by hypothecation of capital equipment and other assets	-	-	-	-
b.Others	-	-	-	-
		-		-
<u>TOTAL</u>		-		-

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

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AMOUNT IN ₹

SCHEDULE 7-	Current Year		Previous Year	
CURRENT LAIBILITIES AND PROVISIONS				
A. CURRENT LIABILITIES				
1. Acceptances	-	-	-	-
2. Sundry Creditors				
a) For Goods	-	-	-	-
b) Others	-	-	-	-
3. Advances Received				
(i) Security deposits from contractors	1,53,42,680		1,05,01,021	
Add: Variations during the year	59,60,049		48,41,659	
Less: Variations during the year	-		-	
		2,13,02,729		1,53,42,680
(ii) Earnest Money deposit	-		-	
Add: Variations during the year	-		-	
Less: Variations during the year	-		-	
		-		-
(iii) Hostel Security from Students	4,35,400		4,48,900	
Add: Variations during the year	-		-	
Less: Variations during the year	46,400		13,500	
		3,89,000		4,35,400
4. Projects Grants/Fellowships				
(i) CSIR	4,79,468		3,55,982	
(ii) DBT	13,70,93,693		11,57,11,114	
(iii) DST/ SERB	2,36,69,410		1,57,55,359	
(iv) NASI	-		-	
(v) INSA/ ICAR	10,06,564		3,46,583	
(vi) Fellowships	20,89,203		41,46,490	
(vii) PSI & AOAP0 Conference	-		46,193	
(viii) Sattelite Symposium	1,000		2,348	
(Annexure-1 to 138)		16,43,39,338		13,63,64,069
5. Interest accrued but not due on :				
(a) Secured Loans /borrowings	-		-	
(b) Unsecured Loans/borrowings	-		-	
		-		-
6. Statutory Liabilities				
a) GSTDS / TDS	13,73,045		18,99,415	
b) Others(NPS)	35,802		32,372	
		14,08,847		19,31,787
7. Other Current Liabilities:				
Audit fees payable	40,000		40,000	
Outstanding Expenses payable	2,20,38,580		2,08,50,484	
		2,20,78,580		2,08,90,484
8. Miscellaneous Liabilities:	2,09,319	2,09,319	67,060	67,060
9. Interest refundable to DBT	1,57,67,733	1,57,67,733	-	-
TOTAL (A)		22,54,95,546		17,50,31,480
B. PROVISIONS				
1. For Taxation	-		-	
2. Gratuity	3,75,75,620		2,99,17,107	
3. Superannuation/Pension	-		-	
4. Accumulated Leave Encashment	4,51,83,718		3,35,63,843	
5. Others (Specify)	-		-	
		8,27,59,338		6,34,80,950
TOTAL (B)		8,27,59,338		6,34,80,950
TOTAL (A+B)		30,82,54,884		23,85,12,430

For V.K.DHINGRA & Co.
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SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st March 2020

SCHEDULE 8- FIXED ASSETS

ASSETS	RATE	W.D.V. As on 01.04.19	Additions/Sales		Total As on 31.03.2020 Rs	Depreciation for the year Rs	W.D.V. As on 31.03.20
			Upto 30.09.19	On or After 01.10.19			
1. Land							
a) Free Hold	0%	4,32,00,000	-	-	4,32,00,000	-	4,32,00,000
b) Lease hold			-	-	-	-	-
2.(A) Building							
a) On Freehold Land	10%	36,14,52,522	-	-	36,14,52,522	3,61,45,252	32,53,07,270
b) On Leasehold Land			-	-	-	-	-
c) Ownership flats/premises	10%		-	-	-	-	-
d) Superstructures on Land not belonging to the entity	10%	4,29,240	-	-	4,29,240	42,924	3,86,316
2.(B) Building (Projects)	10%	2,52,28,907	-	-	2,52,28,907	25,22,891	2,27,06,016
3. Plant Machinery & Equipment							
a) Lab Equipments(Core)	40%	5,56,29,721	40,71,993	89,66,296	6,86,68,009	2,56,73,945	4,29,94,064
b) Lab Equipment (Project)	40%	10,28,78,125	3,47,61,986	9,82,88,147	23,59,28,258	7,47,13,674	16,12,14,584
4. Vehicles	15%	11,47,229	-	7,53,675	19,00,904	2,28,610	16,72,294
5. Furniture & Fixtures	10%	3,01,30,434	3,60,992	1,94,037	3,06,85,463	30,58,844	2,76,26,619
6. Office Equipments	15%	1,28,53,524	35,80,865	46,05,058	2,10,39,447	28,10,538	1,82,28,909
7. Computer / Peripherals	40%	1,56,84,735	20,06,298	11,87,246	1,88,78,279	73,13,862	1,15,64,417
8. Books & Scientific Journals	40%	3,08,657	-	75,097	3,83,754	1,38,482	2,45,272
9. E-Journals	25%	98,59,144	-	42,41,646	1,41,00,790	29,94,992	1,11,05,798
Total of Current Year		65,88,02,237	4,47,82,134	11,83,11,202	82,18,95,573	15,56,44,014	66,62,51,559
Capital work in Progress		5,12,32,129	-	2,10,00,000	-	-	7,22,32,129
CWIP Equipments (Projects)		-	-	36,96,98,653	-	-	36,96,98,653
Grand Total		71,00,34,367	4,47,82,134	50,90,09,855	1,26,38,26,355	15,56,44,014	1,10,81,82,341

Note : CWIP includes advances and deposits for Equipments/Buildings.

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AMOUNT IN ₹

<u>SCHEDULE -9</u>	Current Year		Previous Year	
<u>INVESTMENTS FROM FUND DEBT EMPLOYEES</u>				
<u>PROVIDENT FUND</u>				
1. In Government Securities	-		-	
2. Other approved Securities	-		-	
3. Shares	-		-	
4. Debentures and Bonds	-		-	
5. Subsidiaries and Joint Ventures	-		-	
6. Others-Financial Institutions	6,75,43,322		5,94,85,144	
		6,75,43,322		5,94,85,144
<u>TOTAL</u>		6,75,43,322		5,94,85,144

AMOUNT IN ₹

<u>SCHEDULE 10 -</u>	Current Year		Previous Year	
<u>INVESTMENTS - OTHERS</u>				
1. In Government Securities	-		-	
2. Other approved Securities	-		-	
3. Shares	-		-	
4. Debentures and Bonds	-		-	
5. Subsidiaries and Joint Ventures	-		-	
6. Others	-		-	
		-		-
<u>TOTAL</u>		-		-

For V.K.DHINGRA & Co.
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AMOUNT IN ₹

SCHEDULE -11	Current Year		Previous Year	
CURRENT ASSETS, LOANS, ADVANCES ETC.				
A. CURRENT ASSETS:				
1. Inventories:				
a) Stores and Spares	-		-	
b) Loose Tools	-		-	
c) Stock-in- trade				
Finished Goods	-		-	
Work-in-progress	-		-	
Consumables	27,38,480		10,82,996	
		27,38,480		10,82,996
2. Sundry Debtors				
a) Debts Outstanding for a period exceeding six months	-		-	
b) Others	-		-	
		-		-
3. Cash balance in hand (including cheques/drafts and imprest)	-		-	
		-		-
4. Bank Balances:				
a) With Schedules Banks:				
-On Current Accounts	-		-	
-On Deposit Accounts (includes margin money)	58,80,66,424		1,02,93,55,000	
-On Savings Account	6,70,68,130		4,70,76,297	
-NIPGR CPF Account	62,24,583		12,35,936	
- NIPGR FCRA Account	11,83,037		16,27,342	
- NIPGR HDFC Savings Account	1,78,35,581		-	
		68,03,77,755		1,07,92,94,575
b) With non- Scheduled Banks:				
-On Current Accounts	-		-	
-On Deposit Accounts	-		-	
-On Savings Accounts	-		-	
		-		-
5. Post Office- Savings Accounts	-		-	
		-		-
TOTAL (A)		68,31,16,235		1,08,03,77,571

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AMOUNT IN ₹

SCHEDULE- 11	Current Year		Previous Year	
CURRENT ASSETS, LOANS, ADVANCES ETC.				
B. LOANS,ADVANCES AND OTHER ASSETS:				
1. Loans:				
a)Staff		-		-
b)To other Entities engaged in activities/objectives similar to that of the entity		-		-
2. Advances and other amounts recoverable in cash or in kind for value to be received				
a) On Capital Account (Equipment Adv.)	-		1,09,917	
b) On Capital Account (Equipment Adv.projects)	-		-	
c) Contingencies Advance	2,69,882		7,90,704	
d) Consumable Advance	1,57,794		74,744	
e) Advance for assets	-		-	
f) Security				
(i) Delhi Vidyut Board	24,000		24,000	
ii) Reliance Inds Ltd.	26,000		26,000	
iii) BSES (consumption deposit)	29,43,000		21,42,000	
iv) VSNL (Internet Lease)	70,000		70,000	
(v) Relience Comm.Infrast.Ltd.(Telephone)	2,000		2,000	
vi) Queens Road Service Station	50,000		50,000	
vii) Tata Communications Ltd	94,688		94,688	
viii) Indraprastha Gas Ltd (PNG Connection)	4,14,974		4,14,974	
ix) M/s Balmer Lawrie & Company(Rolling Deposit)	5,00,000		-	
		45,52,338		37,99,027
3. Income Accrued:				
a) On Investments from Earmarked/Endowment Funds	-		-	
b) On Investments - Others	-		-	
c) On Loans and Advances	-		-	
d) Others -(M/s RITES Ltd)	7,43,260		7,43,260	
e) BSES	1,65,495		37,299	
(includes income due unrealised - ₹Nil)				
		9,08,755		7,80,559
4. Claims Receivable				
a) Refund from Income Tax	8,36,672		4,75,153	
b) Other Receivables	47,717	8,84,389	18,539	4,93,692
5. Prepaid Expenses	-		-	
		-		-
TOTAL (B)		63,45,482		50,73,278
TOTAL (A+B)		68,94,61,717		1,08,54,50,848

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AMOUNT IN ₹

<u>SCHEDULE- 12</u>	Current Year		Previous Year	
<u>INCOME FROM SALES/SERVICES</u>				
1. Income from Sales				
a) Sales of Finished Goods	-		-	
b) Sales of Raw Material	-		-	
		-		-
2. Income from Services				
a) Labour and Processing Charges	-		-	
b) Professional/Consultancy Services	-		-	
c) Agency Commission and Brokerage	-		-	
d) Maintenance Services (Equip./Property)	-		-	
e) Others (Specify)	-		-	
		-		-
<u>TOTAL</u>		-		-

AMOUNT IN ₹

<u>SCHEDULE -13</u>	Current Year		Previous Year	
<u>GRANTS/SUBSIDIES</u>				
(Irrevocable Grants & Subsidies Received)				
a) Central Government	42,24,00,000		35,00,00,000	
b) State Government(s)	-		-	
c) Government Agencies	-		-	
d) Institutions/Welfare Bodies	-		-	
e) International Organisation	-		-	
f) Others (Specify)	-		-	
		42,24,00,000		35,00,00,000
<u>TOTAL</u>		42,24,00,000		35,00,00,000

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AMOUNT IN ₹

<u>SCHEDULE 14 -</u> <u>FEES/SUBSCRIPTIONS</u>	Current Year		Previous Year	
a) Entrance Fees	-		-	
b) Annual Fees/Subscriptions	-		-	
c) Seminar/Programme Fees	-		-	
d) Consultancy Fees	-		-	
e) Others (Specify)	-		-	
		-		-
<u>TOTAL</u>		-		-

AMOUNT IN ₹

<u>SCHEDULE 15-</u> <u>INCOME FROM INVESTMENTS</u>	Current Year		Previous Year	
(Income on Invest. from Earmarked/Endow. Funds transferred to Funds)				
1) Interest				
a) On Govt. Securitites	-		-	
b) Other Bonds/Debentures/Term Deposits	21,15,890	21,15,890	-	
				-
2) Dividends				
a) On Shares	-		-	
b) On Mutual Fund Securities	-		-	
		-		-
3) Rents	-		-	
		-		-
4) Other (Specify)	-		-	
		-		-
<u>TOTAL</u>		21,15,890		-
TRANSFERRED TO EARMARKED/ENDOWMENT FUND		21,15,890		

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AMOUNT IN ₹

SCHEDULE 16	Current Year		Previous Year	
INCOME FROM ROYALTY, PUBLICATION ETC.				
1) Income form Royalty	-		-	-
2) Income form Publications	-		-	-
3) Service Charges	-		-	-
		-		-
TOTAL		-		-

AMOUNT IN ₹

SCHEDULE 17	Current Year		Previous Year	
INTEREST EARNED				
1) On Term Deposits:				
a) With Scheduled Banks	5,22,36,521		1,15,31,306	
b) With Non- Scheduled Banks	-		-	
c) With Instituitons	-		-	
d) Others-(M/s.RITES Ltd.)	-		-	
		5,22,36,521		1,15,31,306
2) On Savings Accounts:				
a) With Scheduled Banks	36,92,046		1,01,35,740	
b) With Non- Scheduled Banks	-		-	
c) Post Office Savings Accounts	-		-	
d) Others	-	36,92,046	-	1,01,35,740
3) On Loans:				
a) Employees/Staff	-		-	
b) Others	-		-	
		-		-
4) Interest on Security Deposit/ Receivables				
a) BSES	1,83,883		41,443	-
b) Refund from Income Tax	17,501	2,01,384		41,443
TOTAL		5,61,29,951		2,17,08,489
Interest transferred to respective project	4,01,60,834	4,01,60,834		
Interest refundable to DBT trf to Current Liabilities	1,57,67,733	1,57,67,733		
Note - Tax Deducted at source to be indicated				

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AMOUNT IN ₹

SCHEDULE 18 - OTHER INCOME	Current Year		Previous Year	
1) Profit on Sale/disposal of Assets:				
a) Owned assets	-		-	
b) Assets acquired out of grants or recd. free of cost	-		-	
2) Export Incentives realised	-		-	
3) Other Income				
a. Licence fee from Staff Quarters/Canteen	3,36,264		3,28,180	
b. Guest House Charges	4,55,800		3,89,000	
c. Hostel fee/Rent recovery/Admission/Application Fee	12,09,360		8,61,443	
d. Miscellaneous Income(Tender Fees,RTI charges)	13,830		14,480	
e. Sample Analysis Charges	3,84,455		14,400	
f. Overhead Charges				
i) Funding Agencies	33,50,295		34,97,821	
ii) From DBT	6,10,212		22,42,150	
4) Deferred Income - Fixed Assets	7,84,07,449		8,19,39,477	
		8,47,67,665		8,92,86,951
TOTAL		8,47,67,665		8,92,86,951

AMOUNT IN ₹

SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS	Current Year		Previous Year	
a) Closing Stock:				
- Finished Goods	-		-	
- Work-in-progress	-		-	
		-		-
b) Less: Opening Stock				
- Finished Goods	-		-	
- Work-in-progress	-		-	
		-		-
NET INCREASE/(DECREASE) [a-b]		-		-

AMOUNT IN ₹

SCHEDULE 20 ESTABLISHMENT EXPENSES	Current Year		Previous Year	
a) Salaries and Wages	10,25,59,773		9,73,63,226	
b) Allowances and Bonus	-		-	
c) Contribution to Provident Fund	54,70,499		2,38,522	
d) Contribution to Other Fund (Specify)	-		-	
e) Staff Welfare Expenses	-		-	
f) Expen.on Empl. Retirement and Terminal Benefits	1,92,78,388		84,65,217	
g) Others (Specify)	-		-	
		12,73,08,660		10,60,66,965
TOTAL		12,73,08,660		10,60,66,965

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AMOUNT IN ₹

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.		Current Year		Previous Year	
1 Consumables					
a. Chemicals ,Glasswares & Consumables	5,30,68,305			5,05,63,400	
b. Other Lab Items	-	5,30,68,305		-	5,05,63,400
2 Contingencies					
a. Publication of Papers	17,64,858			10,63,431	
b. Electricity and water charges	7,91,53,012			6,94,34,380	
c. Seminar,Conference & Workshops	35,21,507			27,07,152	
d. Maintenance of Equipment	2,75,19,820			3,15,68,367	
e. Generator Running Expenses	4,71,164			7,09,160	
f. Maintenance of AC Plant	55,79,306			64,00,243	
g. Maintenance of Building	46,12,904			86,54,567	
h. Housekeeping, Sanitation Services	67,79,224			61,71,139	
i. Vehicles Running and Maintenance					
i) Petrol ,Oil & Lubricants	5,17,654			5,66,560	
ii) Maintenance	1,95,631			3,64,456	
j. Postage, Telephone and Comm. Charges					
i) Postage & Telegrams	53,170			55,950	
ii) Telephone & Fax	3,55,953			4,27,629	
k. Printing and Stationary	20,37,432			18,59,911	
l. Security expenses	1,88,09,952			1,77,61,442	
m. Auditors Remuneration	40,000			40,000	
n. Committee Meeting Expenses	8,68,791			6,25,256	
o. Legal fees	5,56,217			1,56,200	
p. Journals and periodicals	2,70,455			2,56,728	
q. Advertisement and Publicity	2,03,408			2,10,869	
r. Miscellaneous Contingencies	14,59,829			11,41,316	
s. Contractual Manpower Services	1,62,23,127			1,28,18,706	
t. Rates & Taxes	42,03,810			33,01,565	
u. Professional Charges	24,41,364			41,19,370	
v. Extra Curricular Activities for Students	7,93,340			7,05,347	
w. NCR Cluster Expenses	11,90,220			-	
x. Interest refunded to DBT	2,12,69,769	20,08,91,917		-	17,11,19,744
3 Campus/Field Development	1,55,19,658	1,55,19,658		1,52,20,606	1,52,20,606
4a. Training affiliation and Others	15,16,172			33,12,272	
4b. NIPGR Fellowship	2,25,99,062	2,41,15,234		1,56,40,114	1,89,52,386
5 Travelling and Conveyance Expenses					
i) Travelling	17,80,592			10,57,847	
ii) Conveyance & Transport	1,53,341	19,33,933		2,08,697	12,66,544
TOTAL		29,55,29,047			25,71,22,680

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANTS
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2020

AMOUNT IN ₹

<u>SCHEDULE 22</u>	Current Year		Previous Year	
EXPENDITURE ON GRANTS,SUBSIDIES ETC.				
a) Grants given to Institutions/ Organisations	-		-	
b) Subsidies given to Institutions / Organisations	-		-	
		-		-
<u>TOTAL</u>		-		-

AMOUNT IN ₹

<u>SCHEDULE 23 - INTEREST</u>	Current Year		Previous Year	
a) On Fixed Loans	-		-	
b) On Other Loans (including Bank Charges)	-		-	
c) Others(specify)	-		-	
		-		-
<u>TOTAL</u>		-		-

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANTS
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
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(DR. SUBHRA CHAKRABORTY)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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**ACCOUNTING POLICIES AND NOTES FORMING PARTS OF THE BALANCE SHEET AS AT
AND INCOME& EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31st MARCH, 2020**

1. The annual accounts have been prepared in the format of accrual system of accounting, except for Interest Income, Extramural Funds and Contributory Provident Fund, which are accounted for on cash basis.
2. (a) Recurring Grants have been recognised in the Income & Expenditure account and Non-Recurring Grants have been shown as addition to grants in aid in the year of receipts.
- (b) Grants for core funds relatable to depreciable fixed assets are treated as deferred income and recognised in the Income and Expenditure Account on a systematic and rational basis over the useful life of such assets i.e. such grants are allocated to income over the periods and in the proportions in which depreciation is charged. During the year income recognised in respect of such Grants amounts to ₹7,84,07,449/-.
3. (a) The depreciation has been provided w.e.f. the date of purchase of fixed assets as per the rates prescribed by Income Tax Rules, 1961. The depreciation on lab equipment has been charged at 40% p.a at par with depreciation rates prescribed for medical equipments under section 32(1)(i) and Appendix I under Rule 5(1). The rate of depreciation in respect of Computers & Pheriphirals and Books & Journlas has been revised to 40% as per the notification No.103/2016/F.No.370142/29/2016-TPL dated November 7,2017.
- (b) Full depreciation is charged during the year of acquisition in case the assets is aquired in the first half and 50% of rate of depreciation for assets acquired during the second half of the financial year.No depreciation is provided during the year of disposal of assets.
- (c) Depreciation of ₹7,72,36,565/- has been provided during the year and directly debited to fixed assets fund.These assets were created out of the Non-Recurring Grants of the projects.
4. Fixed assets have been created with grants received from the Department of Bio-Technology. The condition of these grants, inter alia, stipulates that assets will be the property of Government, who will be free to sell or otherwise dispose off the same. The Govt. of India has the discretion to gift the assets to the Institute if it considers appropriate, but no such gifts have been made so far. Therefore, in effect the ownership of the assets lies with Govt. of India and not with the Institute.

5. All purchases of chemicals, glass-ware, consumables and stationery have been charged to consumption at the time of purchase. However at the end of the accounting year the value of the quantities in stock is reflected as Closing Inventory. The closing stock has been worked out on cost basis and shown in the respective schedule. The closing stock of these items amounting to ₹27,38,480/- was available at the end of the year.
6. (a) Construction Cost and Overheads incidental to construction of building of institute are added to the capital work in progress to be capitalized along with the building.
- (b) The cost of phase –II of the building of the Institute has been capitalized during previous financial year 2018-19, after vetting of final cost by the Building Committee and approval by the Governing Body as per Institutional norms.
7. The Institute has a policy of allocating the overheads and transfer of expenditure from Institute to different projects at the end of year on proportionate basis after taking into account the amount of maximum permissible limits for overheads sanctioned by the funding agency in each project. During the year institute has allocated ₹39,60,507/- as overheads which includes ₹33,50,295/- from different agencies & ₹6,10,212/- from DBT projects.
8. The Institute has made a provision of ₹1,92,78,388/- during current financial year 2019-20 towards the terminal benefits payable to staff, as per Actuarial Valuation. The total accumulated value of provisions towards terminal benefits payable as on 31.03.2020 is ₹8,27,59,338/-.
9. Interest earned on deposits with the banks is treated as income as per instructions contained in Uniform Format of accounts for Autonomous Bodies. However, as per provisions contained in GFR 230 (8) Interest earned on Government Grants is required to be remitted to the Consolidated Fund of India after finalization of accounts. Accordingly, interest on Savings bank account/ Term deposits earned during financial year 2018-19, amounting to ₹2,12,69,769/- in respect of Grants in Aid has been remitted to DBT during the financial year 2019-2020.
10. As per approval of the competent authority a reserve fund with name 11th ISRFG Fund has been created and to be used for the purposes specified in this regard.
11. The Institute hereby make following disclosures :
 - (a) An Arbitration Case was filed by M/s Arora Construction Co. Pvt. Ltd (a Contractor engaged by M/s RITES Ltd, Construction Management Consultants of NIPGR for construction of NIPGR buildings) and the Arbitrator has awarded an amount of ₹4.873 Crore alongwith Interest @12% p.a. in favour of M/s Arora Constructions Co. Pvt. Ltd.. M/s RITES Ltd, on behalf of the Institute has filed appeal in Hon'ble High Court against the Award and Hon'ble High Court has stayed the order of the Arbitrator. The Institute has deposited an amount of ₹2.10 Crore with the Hon'ble High Court as per Orders, through M/s RITES Ltd. Now the court proceedings are in process.

- (b) The Jawaharlal Nehru University has raised demand of monthly rent of ₹62.30 lakhs towards the land allotted to the Institute. The matter has been deliberated by the Finance Committee and Governing Body of the Institute in light of Agreement executed between JNU and NIPGR in this regard, dated 17.06.1999, and resolved that the demand raised by JNU is not justified and this amount is not payable by the Institute.

12. Previous year figures have been re-grouped/re-arranged wherever considered necessary.

For V.K. DHINGRA & Co.
CHARTERED ACCOUNTANTS
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER
Membership No.084312

Place: New Delhi

Date: September 08, 2020

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
RECEIPTS & PAYMENTS FOR THE YEAR ENDED 31st MARCH 2020

AMOUNT IN ₹

RECEIPTS	Current Year		Previous Year	
Particulars				
Opening Balance				
In Saving Account/Short Term deposits	1,07,80,58,639		42,13,12,356	
Reserve & Surplus	-		1,75,880	
Grants Received from Deptt of Biotechnology				
Non recurring	6,00,00,000		3,00,00,000	
Recurring	42,24,00,000		35,00,00,000	
Projects & Fellowships				
Sponsored Projects (Including all receipts & recoverable amounts)	13,00,27,574		88,85,16,705	
Sponsored Fellowship	1,71,72,421		1,81,53,645	
PSI & AOAPO Conference 2016	-		-	
Sponsored Seminar/ Conference/ Conclave	39,94,500		30,69,000	
Interest Earned	5,59,28,567		3,26,64,045	
Security Deposit from Contractors	1,15,15,181		1,16,90,947	
New pension Scheme	11,68,126		-	
GSTDS received/recovered	1,00,48,001		36,96,260	
Remittances	14,53,919		37,66,958	
Other Liabilities	76,659		196	
Refund of Consumable advance	4,300		-	
Refund of Equipment advance	1,09,917		-	
Refund of Contingency advance	1,26,556		2,68,711	
Funds receivable	54,233		1,18,000	
Hostel/Mess Security	22,000		5,500	
Other Income	20,36,486		16,00,433	
TOTAL		1,79,41,97,079		1,76,50,38,636

**AS PER OUR SEPARATE REPORT
OF EVEN DATE ATTACHED.**

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANTS
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

PLACE: NEW DELHI

DATE: September 08, 2020

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
RECEIPTS & PAYMENTS FOR THE YEAR ENDED 31st MARCH 2020

AMOUNT IN ₹

<u>PAYMENTS</u>	Current Year		Previous Year	
Particulars				
Building under Construction (WIP)	2,10,00,000		-	
Lab Equipment	1,30,13,542		4,61,10,735	
Office Equipment	81,83,723		66,66,125	
Computer/Peripherals	31,99,424		1,58,61,901	
Furniture & Fixture	5,55,029		6,01,456	
Books & Scientific Journals	43,16,743		49,53,417	
Vehicle	7,50,132		4,93,457	
<u>Manpower</u>				
Salaries and Wages	10,19,98,588		10,09,36,375	
Contribution to Provident fund	54,70,499		2,38,522	
<u>Consumables</u>				
a) Chemicals ,Glasswares & Consumables	5,32,74,906		4,90,13,342	
b) Other Lab Items	-		-	
<u>Contingencies</u>				
a) Publication of Papers	19,97,350		8,77,200	
b) Electricity and water charges	8,04,73,084		6,91,11,601	
c) Seminar,Conference & Workshops	33,79,069		26,55,172	
d) Maintenance of Equipment	2,67,57,309		3,10,94,294	
e) Maintenance of AC Plant	55,79,306		64,00,243	
f) Maintenance of Building	42,76,032		86,11,090	
g) Vehicles Running and Maintenance				
(i) Petrol ,Oil & Lubricants	4,75,481		5,94,062	
(ii) Maintenance	1,44,423		2,55,527	
h) Postage, Telephone and Comm. Charges				
(i) Postage & Telegrams	49,407		52,474	
(ii) Telephone & Fax	3,56,875		4,27,513	
i) Printing and Stationary	20,45,906		18,68,017	
j) Security expenses	1,95,55,292		1,64,41,835	
k) Auditors Remuneration	40,000		40,000	
l) Committee Meeting Expenses	8,45,817		7,31,685	
m) Legal fees	6,27,617		1,28,600	
n) Journals and Periodicals	2,68,892		2,56,439	
o) Advertisement and Publicity	84,810		1,45,030	
p) Mise.contingencies	6,79,820		11,64,786	
q)Houskeeping,sanitation & Contract services	2,38,46,721		1,75,61,584	
r) Professional Charges	26,62,197		38,70,413	
s)Rates & Taxes	42,03,810		33,01,565	
t)Extra Curricular Activities for Students	7,98,340		6,10,347	
u)Generator Running Expenses	4,71,164		7,09,160	
v)Campus/ Field Development	1,57,86,862		1,51,12,752	
w) Training affiliation and Others	15,16,172		33,12,272	
x) NIPGR Fellowships	2,19,83,154		1,56,93,921	
y) Travelling and Conveyance Expenses				
(i) Travelling	16,26,725		11,75,102	
(ii) Conveyance & Transport	1,88,270		2,09,938	
z) NIPGR NCR Cluster Expenses	9,15,320		-	

Continued

Others				
a) Contingency Advance	5,44,858		12,00,358	
b) Consumable Advance	2,48,936		4,17,476	
c) Equipment advance	-		1,22,126	
d) Security Deposit paid	55,55,132		68,46,018	
e) New Pension Scheme Subscription	10,57,665		50,248	
f) Hostel/Mess Security	68,400		45,000	
g) Remittances	13,84,831		37,63,358	
h) Reserve & Surplus	10,22,132		7,69,757	
Interest refunded to DBT	2,12,69,769			
Sponsored Projects	61,79,69,211		21,28,29,385	
Refund to Agencies(DBT/DST)	33,61,276		98,19,035	
Sponsored Fellowship	1,88,31,089		1,86,67,678	
PSI & AOAPO Conference 2016	-		-	
Sponsored Seminar/ Conference/ Conclave	41,90,111		29,26,648	
Miscellaneous Liabilities	196		-	
GSTDS/GST Deposited	1,06,42,489		18,05,134	
Security Deposit (IGL/M/s Balmer Lawrie)	5,00,000		4,14,974	
GST Input Tax	-		14,851	
Closing Balance				
In Saving Bank Account/Short term Deposit	67,41,53,172		1,07,80,58,639	
TOTAL		1,79,41,97,079		1,76,50,38,636

**AS PER OUR SEPARATE REPORT
OF EVEN DATE ATTACHED.**

**For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANTS
Firm Registration No.: 000250N**

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

PLACE: NEW DELHI

DATE: September 08, 2020

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

CSIR PROJECT

R/P entitled Characterization of 3-Hydroxy-3-methylglutaryl co-enzyme A reductase (HMGR) GENE in *Cicer arietinum*, and its role in abiotic stress

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	3,55,982		-	
<u>Grant- In- Aid for</u>				
i) Staff	-		4,32,000	
ii) Contingencies	-		6,00,000	
iii) Overheads	-		-	
<u>Interest Earned</u>	2,312		11,483	
TOTAL		3,58,294		10,43,483

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Staff	1,68,307		2,14,760	
ii) Contingencies	1,10,608		4,72,741	
iii) Overheads	-		-	
<u>Refund to Agency</u>				
Recurring	-		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	79,379		3,55,982	
TOTAL		3,58,294		10,43,483

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

CSIR PROJECT

R/P entitled Dissection of Proteome Dynamics of high temperature stress in wheat (*Triticum Aestivum*L.)
and identification of potential candidates for Genetic Engineering

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
<u>Grant- In- Aid for</u>				
i) Staff	3,60,000			
ii) Contingencies	5,00,000			
iii) Overheads				
<u>Interest Earned</u>	1,547			
TOTAL		8,61,547		

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Staff	2,78,161			
ii) Contingencies	4,97,388			
iii) Overheads				
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	85,998			
TOTAL		8,61,547		

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
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(DR. SUBHRA CHAKRABORTY)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

CSIR PROJECT

R/P entitled Decoding the N-Acetylglucosamine Signaling Pathway in Microbial Pathogens for disease control

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
<u>Grant- In- Aid for</u>				
i) Staff	3,60,000			
ii) Contingencies	5,00,000			
iii) Overheads				
<u>Interest Earned</u>	4,992			
TOTAL		8,64,992		

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Staff	93,800			
ii) Contingencies	4,57,101			
iii) Overheads				
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	3,14,091			
TOTAL		8,64,992		

For V.K.DHINGRA & Co.
 CHARTERED ACCOUNTANT
 Firm Registration No.: 000250N

(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DBT PROJECT

R/P entitled Nutritional Genomics: Value Added transgenic crops for better nutrition & fungal resistance

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-55,569		-55,569	
Adjusted from NIPGR CORE GRANT				
Recurring	-		-	
Equipment	55,569		-	
	-		-	
	-		-	
TOTAL		-		-55,569

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-		-	
ii) Consumable	-		-	
iii) Travel	-		-	
iv) Contingencies	-		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		-55,569	
TOTAL		-		-55,569

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DBT PROJECT

R/P entitled Isolation and characterization of early-responsive chickpea genes involved in
defense/resistance in response to Ascochyta infection

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-30,036		-30,036	
Equipment	-48,474		-48,474	
Adjusted from NIPGR CORE GRANT			-	
Recurring	30,036			
Equipment	48,474			
TOTAL		-		-78,510

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		-30,036	
Equipment	-		-48,474	
TOTAL		-		-78,510

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

R/P entitled Establishment of a Distributed Information Sub-Centre at National Institute for Plant Genome Research, New Delhi.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	17,66,013		3,41,854	
Equipment	2,43,227		39,726	
<u>Grant- In- Aid for</u>				
i) Equipment	-		19,60,274	
ii) Manpower	-		10,00,000	
iii)Contingencies	-		3,93,481	
iv) Travel	-		1,00,000	
v) Other Cost	-		4,44,597	
Other Receipts	3,23,000		61,000	
<u>Interest Earned</u>	19,481		15,167	
TOTAL		23,51,721		43,56,099

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	1,63,187		17,56,773	
ii) Manpower	8,49,355		4,01,420	
iii)Contingencies	2,24,855		63,651	
iv) Travel	27,051		14,748	
v) Other Cost	4,18,419		1,10,267	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	5,88,814		17,66,013	
Equipment	80,040		2,43,227	
TOTAL		23,51,721		43,56,099

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DBT PROJECT

R/P entitled Automated DNA sequencing and controlled environment plant growth chamber facility

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Savings A/C				
Equipment	-3,44,639		-3,44,639	
			-	
Adjusted from NIPGR CORE GRANT				
i) Equipment	3,44,639		-	
TOTAL		-		-3,44,639

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Equipment	-		-3,44,639	
TOTAL		-		-3,44,639

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DBT PROJECTR/P entitled DNA barcoding of *Dalbergia species*

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	45,059		45,059	
Equipment	-1,91,459		-1,91,459	
Adjusted from NIPGR CORE GRANT				
Recurring	-45,059			
Equipment	1,91,459			
TOTAL		-		-1,46,400

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		45,059	
Equipment	-		-1,91,459	
TOTAL		-		-1,46,400

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
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DIRECTOR(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

R/P entitled Biotechnological approaches to improve nutritional and post-harvest quality, drought tolerance and pathogen resistance in edible crops

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	28,65,506		12,75,312	
<u>Grant- In- Aid for</u>				
i) Manpower	-		37,48,800	
ii) Consumable	-		4,65,200	
iii) Travel	-		50,000	
iv) Contingencies	-		1,00,000	
<u>Interest Earned</u>	4,061		10,585	
TOTAL		28,69,567		56,49,897

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	13,24,320		25,03,799	
ii) Consumable	13,78,771		2,74,672	
iii) Travel	-		-	
iv) Contingencies	-		5,920	
<u>Refund to Agency</u>				
Recurring	1,66,476			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		28,65,506	
TOTAL		28,69,567		56,49,897

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

R/P entitled Identification and characterization of effectors from necrotrophic blight fungus *Ascochyta rabiei* and their targets from the chickpea.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,09,345		1,05,139	
Equipment	-		-	
<u>Grant- In- Aid for</u>				
i) Equipment				
ii) Manpower	-		-	
iii) Consumable	-		-	
iv) Travel	-		-	
v) Contingencies	-		-	
<u>Interest Earned</u>	3,280		4,206	
TOTAL		1,12,625		1,09,345

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	-		-	
iii) Consumable	-		-	
iv) Travel	-		-	
v) Contingencies	-		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,12,625		1,09,345	
Equipment	-		-	
TOTAL		1,12,625		1,09,345

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
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(SANDEEP DATTA)
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NEW DELHI

DBT PROJECT

R/P entitled Introgression of begomovirus resistance genes in tomato (*Solanum lycopersicum* L.) using MAS and Genomic approach.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	2,09,420		1,64,898	
<u>Grant- In- Aid for</u>				
i) Manpower	-		7,78,000	
ii) Consumable	-		10,73,000	
iii) Travel	-		31,000	
iv) Contingencies	-		15,000	
<u>Interest Earned</u>	2,149		3,564	
TOTAL		2,11,569		20,65,462

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,37,800		7,31,523	
ii) Consumable	-		10,75,494	
iii) Travel	-		31,915	
iv) Contingencies	-		17,110	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	73,769		2,09,420	
TOTAL		2,11,569		20,65,462

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
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(SANDEEP DATTA)
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(DR. SUBHRA CHAKRABORTY)
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NEW DELHI

DBT PROJECT

R/P entitled The role of hypoxia-induced nitric oxide in plant growth and flooding stress survival.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	20,395		-	
<u>Grant- In- Aid for</u>				
i)Research/Contingency grant	4,80,000		5,00,000	
<u>Interest Earned</u>	73		650	
TOTAL		5,00,468		5,00,650

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Research/Contingency grant	4,97,457		4,80,255	
<u>Refund to Agency</u>				
Recurring	3,011			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		20,395	
TOTAL		5,00,468		5,00,650

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NEW DELHI

DBT PROJECT

R/P entitled Association of transcript polymorphic simple sequence repeats, SNPs and microRNAs with agronomic traits in chickpea.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	46,788		-	
<u>Grant- In- Aid for</u>				
i) Fellowship	3,00,000		3,00,000	
ii) Consumable/Contingencies/Travel	5,48,000		5,80,000	
<u>Interest Earned</u>	280		1,800	
TOTAL		8,95,068		8,81,800

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	2,75,000		3,00,000	
ii) Consumable/Contingencies/Travel	4,17,878		5,35,012	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	2,02,190		46,788	
TOTAL		8,95,068		8,81,800

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
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DBT PROJECT

DBT's R/P entitled Investigation of molecular and genetic basis of plant development regulation in response to environmental changes.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	5486		1844	
<u>Grant- In- Aid for</u>				
i) Manpower	14,17,000		14,80,933	
ii) Research/Contingency grant	5,00,000		4,98,000	
<u>Interest Earned</u>	3		74	
TOTAL		19,22,489		19,80,851

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	14,22,000		14,76,516	
ii) Research/Contingency grant	5,00,379		4,98,849	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	110		5,486	
TOTAL		19,22,489		19,80,851

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
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DBT PROJECT

R/P entitled Challenge Programme on Chickpea Functional Genomics.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	29,80,383		19,06,219	
Equipment	-		8,36,062	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-8,36,062	
ii) Manpower	14,91,575		40,59,149	
iii) Consumable	20,39,648		72,35,734	
iv) Travel	29,050		80,814	
v) Contingencies	29,050		1,25,284	
vi)Overheads	3,00,000		-	
<u>Interest Earned</u>	24,930		48,185	
TOTAL		68,94,636		1,34,55,385

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	19,52,213		49,56,240	
iii) Consumable	37,04,716		52,30,753	
iv) Travel	51,898		1,46,887	
v) Contingencies	29,888		1,41,122	
vi)Overheads	3,51,381		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	8,04,540		29,80,383	
Equipment	-		-	
TOTAL		68,94,636		1,34,55,385

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NEW DELHI

DBT PROJECT

R/P entitled Functional analysis of a Mediator subunit gene, Med17, in rice and Arabidopsis.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,87,413		1,50,079	
<u>Grant- In- Aid for</u>				
i) Manpower	-		5,30,724	
ii) Consumable	-		12,72,389	
iii) Travel	-		17,173	
iv) Contingencies	-		21,635	
<u>Interest Earned</u>	1,479		1,817	
TOTAL		1,88,892		19,93,817

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,28,267		4,84,942	
ii) Consumable	-		12,56,439	
iii) Travel	-		24,030	
iv) Contingencies	-		40,993	
<u>Refund to Agency</u>				
Recurring	60,625			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		1,87,413	
TOTAL		1,88,892		19,93,817

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
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DBT PROJECT

R/P entitled Hypoxia-induced nitric oxide as a tool in protection of plants under flooding and pathogen attack.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	9,725		11,391	
Equipment	-		-	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-	
ii) Manpower	-		4,37,000	
iii) Consumable/Contingencies/Travel	-		5,38,000	
iv) Cash Award	-		1,00,000	
<u>Interest Earned</u>	95		133	
TOTAL		9,820		10,86,524

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	-		4,32,691	
iii) Consumable/Contingencies/Travel	5,000		5,44,108	
iv) Cash Award	-		1,00,000	
<u>Refund to Agency</u>				
Recurring	4,820			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		9,725	
Equipment	-		-	
TOTAL		9,820		10,86,524

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
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DBT PROJECT

R/P entitled Cambridge-India Network for Translation Research in Nitrogen

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	10,05,847		12,64,993	
<u>Grant- In- Aid for</u>				
i) Manpower	44,880		5,72,000	
ii) Consumable	-		7,44,367	
iii) Travel	-		3,49,837	
iv) Contingencies	-		34,678	
v) Others	-		12,351	
vi) Overhead Charges	-		-	
<u>Interest Earned</u>	17,258		38,686	
TOTAL		10,67,985		30,16,912

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,48,880		6,24,000	
ii) Consumable	-		12,90,689	
iii) Travel	2,01,489		27,784	
iv) Contingencies	1,657		68,592	
v) Others	71,141		-	
vi) Overhead Charges	-		-	
<u>Refund to Agency</u>				
Recurring	6,44,818			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	-		10,05,847	
TOTAL		10,67,985		30,16,912

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NEW DELHI

DBT PROJECT

R/P entitled To study the role of glucose and its interaction with hormones in controlling shade stress response in Arabidopsis and tomato

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	10,79,695		5,96,161	
<u>Grant- In- Aid for</u>				
i) Manpower	-		7,03,625	
ii) Consumable	-		14,08,538	
iii) Travel	-		46,000	
iv) Contingencies	-		-	
<u>Interest Earned</u>	2,384		2,644	
TOTAL		10,82,079		27,56,968

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	2,45,677		7,60,130	
ii) Consumable	7,37,561		8,87,272	
iii) Travel	-		-	
iv) Contingencies	1,102		29,871	
<u>Refund to Agency</u>				
Recurring	97,739			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	-		10,79,695	
TOTAL		10,82,079		27,56,968

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
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DBT PROJECT**R/P entitled Simple quick and onsite early diagnostic kit for pathogen detection during asymptomatic stage****RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020**

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	8,28,879		9,88,254	
Equipment				
<u>Grant- In- Aid for</u>				
i) Equipment	-		-	
ii) Manpower	-		3,21,976	
iii) Consumable	-		3,81,415	
iv) Travel	-		-	
v) Contingencies	-		8,745	
vi) Overhead charges	-		1,00,000	
<u>Interest Earned</u>	8,077		6,703	
TOTAL		8,36,956		18,07,093

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	1,12,671		4,37,666	
iii) Consumable	3,69,292		3,91,481	
iv) Travel	-		17,839	
v) Contingencies	23,850		31,228	
vi) Overhead charges	-		1,00,000	
<u>Refund to Agency</u>				
Recurring	3,31,143			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		8,28,879	
Equipment	-		-	
TOTAL		8,36,956		18,07,093

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
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DBT PROJECT

R/P entitled Identification and characterization of MicroRNAs regulating embryonic shoot and root Meristems

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	5,54,377		7,06,421	
Equipment	-		45,781	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-51,895	
ii) Manpower	-		5,14,954	
iii) Consumable	-		5,99,874	
iv) Travel	-		-	
v) Contingencies	-		49,883	
<u>Interest Earned</u>	852		4,114	
TOTAL		5,55,229		18,69,132

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-6,114	
ii) Manpower	2,76,237		5,19,665	
iii) Consumable	1,96,574		7,26,795	
iv) Travel	1,889		26,939	
v) Contingencies	51,265		47,470	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	29,264		5,54,377	
Equipment	-		-	
TOTAL		5,55,229		18,69,132

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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DBT PROJECT

R/P entitled Genome wide association study of yield contributing agronomic traits in foxtail millet
(Setaria italica (L) BEAUV)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	15,724		948	
<u>Grant- In- Aid for</u>				
i) Consumables/Contingencies/Travel	-		5,00,000	
<u>Interest Earned</u>	239		38	
TOTAL		15,963		5,00,986

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Consumables/Contingencies/Travel	3,752		4,85,262	
<u>Refund to Agency</u>				
Recurring	12,211			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		15,724	
TOTAL		15,963		5,00,986

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

R/P entitled Identification of genes contributing resistance to Alternaria brassicae from a nonhost plant and their characterization in Arabidopsis for durable crop protection against blight disease in Brassica rapa

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	3,63,794		7,14,483	
Equipment	-		-	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-	
ii) Manpower	-		1,44,000	
iii) Consumable	-		1,26,000	
iv) Travel	-		28,000	
v) Contingencies	-		58,000	
vi) Overhead charges	-		50,000	
<u>Interest Earned</u>	197		3,540	
TOTAL		3,63,991		11,24,023

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	1,89,280		2,82,880	
iii) Consumable	1,05,978		3,86,956	
iv) Travel	20,250		7,364	
v) Contingencies	41,717		33,029	
vi) Overhead charges	-		50,000	
<u>Refund to Agency</u>				
Recurring	6,766			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		3,63,794	
Equipment	-		-	
TOTAL		3,63,991		11,24,023

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
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(SANDEEP DATTA)
COA

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DBT PROJECT

R/P entitled Genetic understanding and manipulation of sucrose transport to increase the rice yield

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,15,888		6,81,694	
Equipment	2,700		2,700	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-	
ii) Manpower	4,61,880		1,97,420	
iii) Consumable/Contingencies/Travel	4,42,314		1,57,686	
iv) Overhead charges	15,439		90,000	
v) Cash Award	-		1,00,000	
<u>Interest Earned</u>	1,608		4,561	
TOTAL		10,39,829		12,34,061

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	4,08,278		3,25,516	
iii) Consumable/Contingencies/Travel	4,42,277		5,99,957	
iv) Overhead charges	20,000		90,000	
v) Cash Award	-		1,00,000	
<u>Refund to Agency</u>				
Recurring	1,66,574			
Equipment	2,700			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		1,15,888	
Equipment	-		2,700	
TOTAL		10,39,829		12,34,061

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DBT PROJECT

R/P entitled Drought and wilt disease causing pathogen interaction in tomato plants: dissecting molecular responses using VIGS

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	3,39,143		4,22,853	
Equipment	17,695		17,695	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-	
ii) Manpower	3,11,740		1,88,300	
iii) Consumable/Contingencies/Travel	2,16,305		4,25,600	
iv) Overhead charges	2,019		90,000	
v) Cash Award	-		1,00,000	
<u>Interest Earned</u>	1,525		7,981	
TOTAL		8,88,427		12,52,429

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	4,46,145		2,26,620	
iii) Consumable/Contingencies/Travel	3,05,806		4,78,971	
iv) Overhead charges	10,000		90,000	
v) Cash Award	-		1,00,000	
<u>Refund to Agency</u>				
Recurring	1,08,781			
Equipment	17,695			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		3,39,143	
Equipment	-		17,695	
TOTAL		8,88,427		12,52,429

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
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COA

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NEW DELHI

DBT PROJECT

R/P entitled Functional validation of yield related genes

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	74,458		3,12,914	
<u>Grant- In- Aid for</u>				
i) Manpower	5,14,000		2,38,000	
ii) Consumable	4,60,000		4,95,000	
iii) Travel	-		-	
iv) Contingencies	23,000		10,000	
<u>Interest Earned</u>	2,234		2,864	
TOTAL		10,73,692		10,58,778

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	2,41,599		4,23,565	
ii) Consumable	4,75,263		5,44,076	
iii) Travel	-		-	
iv) Contingencies	34,128		16,679	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	3,22,702		74,458	
TOTAL		10,73,692		10,58,778

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
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DIRECTOR(VIPUL GIROTRA)
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NEW DELHI

DBT PROJECT

R/P entitled Investigation of the role of mitogen activated protein kinase in rice yield

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	46,568		48,281	
<u>Grant- In- Aid for</u>				
i) Manpower	3,00,000		3,00,000	
ii) Consumable/Contingencies/Travel	5,53,432		5,53,719	
<u>Interest Earned</u>	1,397		1,697	
TOTAL		9,01,397		9,03,697

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	2,75,000		3,00,000	
ii) Consumable/Contingencies/Travel	1,49,178		5,57,129	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	4,77,219		46,568	
TOTAL		9,01,397		9,03,697

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)

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NEW DELHI

DBT PROJECT

R/P entitled To study the interaction between glucose and salicylic acid signal transduction pathway in model plant Arabidopsis thaliana

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	23,688		6,384	
<u>Grant- In- Aid for</u>				
i) Consumable/Contingencies/Travel	4,76,000		5,00,000	
<u>Interest Earned during the Year</u>	411		255	
TOTAL		5,00,099		5,06,639

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Consumable/Contingencies/Travel	3,69,856		4,82,951	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	1,30,243		23,688	
TOTAL		5,00,099		5,06,639

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

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DBT PROJECT

R/P entitled Identification of the major players behind the root nodule symbiosis in the legumes and understanding their roles in nitrogen fixation

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	2,13,074		31,51,345	
<u>Grant- In- Aid for</u>				
i) Fellowship	16,67,395		-	
ii) Reseach/Contingency grant	4,63,805		-	
<u>Interest Earned</u>	284		8,195	
TOTAL		23,44,558		31,59,540

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	13,70,000		20,35,000	
ii) Reseach/Contingency grant	3,69,297		9,11,466	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	6,05,261		2,13,074	
TOTAL		23,44,558		31,59,540

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

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NEW DELHI

DBT PROJECT

R/P entitled Understanding the role of calcium ion channels in plant defense against Spodoptera litura herbivory

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	4,41,052		3,13,041	
Equipment	-18,307		-11,699	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-	
ii) Manpower	-		5,63,443	
iii) Consumable	-		4,61,419	
iv) Travel	-		-	
v) Contingencies	-		-	
vi) Overheads charges	-		57,000	
<u>Interest Earned</u>	4,549		3,918	
TOTAL		4,27,294		13,87,122

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		6,608	
ii) Manpower	1,69,880		6,02,027	
iii) Consumable	87,977		2,96,532	
iv) Travel	8,010		-	
v) Contingencies	5,250		2,210	
vi) Overheads charges	-		57,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,74,484		4,41,052	
Equipment	-18,307		-18,307	
TOTAL		4,27,294		13,87,122

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
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(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

R/P entitled Understanding the Molecular regulation of root Hair Development in Chickpea for Crop improvement:

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	5,65,527		1,97,318	
Equipment	2,366		7,88,041	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-	
ii) Manpower	2,29,000		3,90,000	
iii) Consumable/Contingency/Travel	5,96,326		5,32,000	
iv) Cash Award	1,00,000		1,00,000	
<u>Interest Earned</u>	3,425		3,674	
TOTAL		14,96,644		20,11,033

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		7,85,675	
ii) Manpower	3,34,812		3,12,252	
iii) Consumable/Contingency/Travel	9,44,256		2,45,213	
vi) Cash Award	1,00,000		1,00,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,15,210		5,65,527	
Equipment	2,366		2,366	
TOTAL		14,96,644		20,11,033

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

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DBT PROJECT

R/P entitled Study of vascular wilt responsive proteome in chickpea-Fusarium

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	7,03,767		7,73,446	
<u>Grant- In- Aid for</u>				
i) Manpower	4,09,600		4,98,110	
ii) Consumable	3,82,328		4,78,250	
iii) Travel	-		-	
iv) Contingencies	36,249		-	
v) Overheads charges	48,000		58,000	
<u>Interest Earned</u>	1,855		2,607	
TOTAL		15,81,799		18,10,413

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	6,00,000		6,00,000	
ii) Consumable	4,41,944		4,21,240	
iii) Travel	9,222		-	
iv) Contingencies	-		27,406	
v) Overheads charges	48,000		58,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	4,82,633		7,03,767	
TOTAL		15,81,799		18,10,413

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

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DBT PROJECT

R/P entitled Identification, Diversity and Functional Roles of Host-encoded Resistance in Vector Borne Plant RNA Viruses

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	3,36,228		12,51,600	
Equipment	15,500		20,00,000	
<u>Grant- In- Aid for</u>				
i) Equipment	-15,500		-	
ii) Manpower	9,02,652		-	
iii) Consumable	1,94,664		-	
iv) Travel	34,853		-	
v) Contingencies	36,472		-	
<u>Interest Earned</u>	3,415		13,528	
TOTAL		15,08,284		32,65,128

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		19,84,500	
ii) Manpower	12,12,900		6,48,657	
iii) Consumable	79,011		1,94,664	
iv) Travel	-		34,853	
v) Contingencies	49,124		50,726	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,67,249		3,36,228	
Equipment	-		15,500	
TOTAL		15,08,284		32,65,128

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
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DBT PROJECT

R/P entitled Biofortification of Branched Chain Amino Acid-Leucine in Brassica Crops using CRISPR-Cas9 Mediated Genome Editing

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	11,06,824		23,16,800	
Equipment	2,000		11,00,000	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-	
ii) Manpower	-		2,45,000	
iii) Consumable	-		4,38,000	
iv) Travel	-		-	
v) Contingencies	-		44,000	
vi) Overhead charges	-		-	
<u>Interest Earned</u>	3,563		40,288	
TOTAL		11,12,387		41,84,088

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		10,98,000	
ii) Manpower	4,68,735		3,78,053	
iii) Consumable	4,74,990		14,52,595	
iv) Travel	-		-	
v) Contingencies	46,347		46,616	
vi) Overhead charges	-		1,00,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,20,315		11,06,824	
Equipment	2,000		2,000	
TOTAL		11,12,387		41,84,088

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
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DBT PROJECT

**R/P entitled Genome engineering to upscale the production of a broad spectrum anti-fungal protein
Bg_9562 in Escherichia coli**

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	16,76,783		17,61,600	
Equipment	17,04,000		17,04,000	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-	
ii) Manpower	-		2,00,000	
iii) Consumable	-		10,72,000	
iv) Travel	-		-	
v) Contingencies	-		-	
<u>Interest Earned</u>	14,076		83,666	
TOTAL		33,94,859		48,21,266

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	15,37,724			
ii) Manpower	2,62,180		3,09,988	
iii) Consumable	10,82,874		10,91,189	
iv) Travel	17,982		-	
v) Contingencies	10,821		39,306	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	3,17,002		16,76,783	
Equipment	1,66,276		17,04,000	
TOTAL		33,94,859		48,21,266

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

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DBT PROJECT

R/P entitled To Perform Event Selection under Small Scale Open Field Growth Condition and Substantial Equivalence Test of the Low Glucosinolate Brassica juncea Transgenic Lines

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	2,04,916		9,91,500	
<u>Grant- In- Aid for</u>				
i) Manpower	1,68,600		-	
ii) Consumable	4,72,400		-	
iii) Travel	10,000		-	
iv) Contingencies	10,000		-	
<u>Interest Earned</u>	6,141		7,881	
TOTAL		8,72,057		9,99,381

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,35,871		2,57,400	
ii) Consumable	3,59,829		5,22,889	
iii) Travel	-		-	
iv) Contingencies	4,493		14,176	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	3,71,864		2,04,916	
TOTAL		8,72,057		9,99,381

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

R/P entitled Avanced Research Platform for Crop Sciences

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,16,67,544		1,30,92,400	
Equipment	13,31,96,519		22,99,45,425	
<u>Grant- In- Aid for</u>				
i) Equipment	-		-	
ii) Manpower	-		-	
iii) Consumable	-		-	
iv) Travel	-		-	
v) Contingencies	-		-	
<u>Interest Earned</u>	5,04,709		55,71,695	
TOTAL		14,53,68,772		24,86,09,520

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	12,34,14,402		9,67,48,906	
ii) Manpower	37,93,009		17,82,900	
iii) Consumable	4,12,971		50,22,819	
iv) Travel	-		-	
v) Contingencies	4,26,825		1,90,832	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	75,39,448		1,16,67,544	
Equipment	97,82,117		13,31,96,519	
TOTAL		14,53,68,772		24,86,09,520

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIOTRA)
PARTNER
Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DBT PROJECT

DBT Cambridge Joint Lectureship Programme

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	92,555		9,77,100	
<u>Grant- In- Aid for</u>				
i) Manpower	2,50,000		-	
<u>Interest Earned</u>	467		3,560	
TOTAL		3,43,022		9,80,660

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	3,08,000		8,88,105	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	35,022		92,555	
TOTAL		3,43,022		9,80,660

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
PARTNER
Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DBT PROJECT

**Determination the role of(Cysteine-Rich Secetary Proteinsantigen 5 and Pathogenesis-Related 1
Proteins(CAP) during Arachis-Bradyrhizobium symbiosis**

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	9,31,827			
Equipment	18,00,000			
<u>Grant- In- Aid for</u>				
i) Equipment	-		18,00,000	
ii) Manpower	5,42,496		7,80,000	
iii) Consumable	4,64,032		5,00,000	
iv) Travel	2,000		25,000	
v) Contingencies	38,808		50,000	
vi) Overhead Charges	-		-	
<u>Interest Earned</u>	2,976		57,688	
TOTAL		37,82,139		32,12,688

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	19,48,081		-	
ii) Manpower	5,77,017		3,58,888	
iii) Consumable	5,87,004		1,05,148	
iv) Travel	2,000		-	
v) Contingencies	49,046		16,825	
vi) Overhead Charges	-		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	7,67,072		9,31,827	
Equipment	-1,48,081		18,00,000	
TOTAL		37,82,139		32,12,688

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DBT PROJECT

Development of an integrated multi-omics analysis platform and its application to elucidate the differential process of silk colouration in the Mugasilworm *Antheria assamensis* Heifer

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	5,97,602			
<u>Grant- In- Aid for</u>				
i) Manpower	-		3,90,000	
ii) Consumable	-		3,50,000	
iii) Travel	-		30,000	
iv) Contingencies	-		50,000	
v) Overhead Charges	-		10,000	
<u>Interest Earned</u>	836		12,673	
TOTAL		5,98,438		8,42,673

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,62,500		2,24,250	
ii) Consumable	3,32,005		8,663	
iii) Travel	29,776		-	
iv) Contingencies	45,448		2,158	
v) Overhead Charges	-		10,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	28,709		5,97,602	
TOTAL		5,98,438		8,42,673

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NEW DELHI

DBT PROJECT

Editing MPK3 a mitogen activated protein kinase gene using CRISPR/Cas9 tool in rice to study its role in cell cycle and grain yield

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	13,80,182			
Equipment	14,96,000			
<u>Grant- In- Aid for</u>				
i) Equipment	-		14,96,000	
ii) Manpower	-		5,61,600	
iii) Consumable	-		12,00,000	
iv) Travel	-		50,000	
v) Contingencies	-		50,000	
vi) Overhead Charges	-		1,00,000	
<u>Interest Earned</u>	24,268		56,396	
TOTAL		29,00,450		35,13,996

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	10,11,476			
ii) Manpower	3,67,355			
iii) Consumable	6,53,717		5,22,904	
iv) Travel	-		-	
v) Contingencies	34,702		14,910	
vi) Overhead Charges	-		1,00,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	3,48,676		13,80,182	
Equipment	4,84,524		14,96,000	
TOTAL		29,00,450		35,13,996

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NEW DELHI

DBT PROJECT

Plant Genomics and Genotyping Facility

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	4,50,02,688			
Equipment	67,01,76,030			
<u>Grant- In- Aid for</u>				
i) Equipment			67,01,76,030	
ii) Manpower			1,23,33,550	
iii) Consumable	-		20,00,000	
iv) Travel	-		30,00,000	
v) Contingencies			30,00,000	
vi) Other Expenses	-		75,00,000	
vii) Overhead Charges	-		10,00,000	
<u>Interest Earned</u>	3,85,67,800		1,71,69,138	
TOTAL		75,37,46,518		71,61,78,718

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	35,19,31,343			
ii) Manpower	58,79,081		-	
iii) Consumable	-		-	
iv) Travel	-		-	
v) Contingencies	5,80,659		-	
vi) Other Expenses	1,27,465			
vii) Overhead Charges	-		10,00,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	7,69,83,283		4,50,02,688	
Equipment	31,82,44,687		67,01,76,030	
TOTAL		75,37,46,518		71,61,78,718

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

Towards disbursement of Micro grant for implementation of projects under the Foldscope scheme

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	1,41,902			
<u>Grant- In- Aid for</u>				
i) Manpower	-		2,25,000	
ii) Consumable	-		1,50,000	
iii) Travel	-		1,50,000	
iv) Contingencies	-		75,000	
<u>Interest Earned</u>	1,179		5,458	
TOTAL		1,43,081		6,05,458

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-		1,00,135	
ii) Consumable	-		2,39,069	
iii) Travel	33,953		61,566	
iv) Contingencies	49,007		62,786	
<u>Refund to Agency</u>				
Recurring	60,121			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	-		1,41,902	
TOTAL		1,43,081		6,05,458

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Generating genomic resources for facilitating genetic enhancement of selective *Vigna species* and Horse gram Sub-Project-1, Component-2

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	96,23,083			
Equipment	99,00,000			
<u>Grant- In- Aid for</u>				
i) Equipment	-		99,00,000	
ii) Manpower	-		33,15,600	
iii) Consumable	-		60,00,000	
iv) Travel	-		50,000	
v) Contingencies	-		50,000	
vi) Overhead Charges	-		2,00,000	
<u>Interest Earned</u>	1,30,263		2,56,883	
TOTAL		1,96,53,346		1,97,72,483

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	79,17,450		-	
ii) Manpower	12,64,117		49,400	
iii) Consumable	59,99,423		-	
iv) Travel	-		-	
v) Contingencies	-		-	
vi) Overhead Charges	-		2,00,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	24,89,806		96,23,083	
Equipment	19,82,550		99,00,000	
TOTAL		1,96,53,346		1,97,72,483

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NEW DELHI

DBT PROJECT

Integrated Genomic Strategy for Accelerating Domestication of Rice Bean (*Vigna umbellata*) Sub-Project-2, Component-1

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	86,34,965			
Equipment	10,00,000			
<u>Grant- In- Aid for</u>				
i) Equipment	-		10,00,000	
ii) Manpower	-		33,55,200	
iii) Consumable	-		75,00,000	
iv) Travel	-		50,000	
v) Contingencies	-		50,000	
<u>Interest Earned</u>	32,525		1,26,776	
TOTAL		96,67,490		1,20,81,976

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	9,71,250		-	
ii) Manpower	18,30,706		6,57,579	
iii) Consumable	56,92,102		17,85,032	
iv) Travel	8,070		3,400	
v) Contingencies	48,684		1,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	10,87,928		86,34,965	
Equipment	28,750		10,00,000	
TOTAL		96,67,490		1,20,81,976

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

Genomic-led improvement of biotic and abiotic stress tolerance in mustard rape for economic and environmental sustainability

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	18,99,600			
Equipment	35,00,000			
<u>Grant- In- Aid for</u>				
i) Equipment	-		35,00,000	
ii) Manpower	-		8,08,800	
iii) Consumable	-		14,00,000	
iv) Travel	-		10,000	
v) Contingencies	-		50,000	
vi) Others	-		1,00,000	
<u>Interest Earned</u>	10,798		1,05,875	
TOTAL		54,10,398		59,74,675

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	33,26,259		-	
ii) Manpower	4,04,400		3,80,497	
iii) Consumable	10,40,704		1,46,687	
iv) Travel	-		-	
v) Contingencies	14,722		31,371	
vi) Others	41,019		16,520	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	4,09,553		18,99,600	
Equipment	1,73,741		35,00,000	
TOTAL		54,10,398		59,74,675

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NEW DELHI

DBT PROJECT

Analysis of Phytochrome interacting Factor (PIF4) and HistoneVariant (H2A.Z)-Mediated Thermosensory Regulatory Network in Arabidopsis thaliana

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	12,32,792			
Equipment	1,24,955			
<u>Grant- In- Aid for</u>				
i) Equipment	-		1,24,955	
ii) Manpower	-		6,00,000	
iii) Consumable	-		5,00,000	
iv) Travel	-		25,000	
v) Contingencies	-		50,000	
vi) Overheads Charges	-		57,500	
<u>Interest Earned</u>	2,943		292	
TOTAL		13,60,690		13,57,747

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	77,702			
ii) Manpower	5,98,333		-	
iii) Consumable	4,76,301		-	
iv) Travel	-		-	
v) Contingencies	49,805		-	
vi) Overheads Charges	57,500			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	53,796		12,32,792	
Equipment	47,253		1,24,955	
TOTAL		13,60,690		13,57,747

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NEW DELHI

DBT PROJECT

Transforming India's Green Revolution by Research and Empowerment for Sustainable food Supplies
(TIGR2ESS) under the Global Challenges Research Fund programme

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	18,96,392			
<u>Grant- In- Aid for</u>				
i) Staff Fund	-		14,35,722	
ii) Research Fund	-		24,38,850	
iii) Overheads	-		2,87,150	
<u>Interest Earned</u>	4,740		31,088	
TOTAL		19,01,132		41,92,810

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Staff Fund	9,95,000		4,81,779	
ii) Research Fund	7,43,405		15,27,489	
iii) Overheads	-		2,87,150	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	1,62,727		18,96,392	
TOTAL		19,01,132		41,92,810

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
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DBT PROJECT

Nitric oxide signalling in response to Botrytis cinerea infection Tomato fruits

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	9,00,070			
Equipment	21,06,768			
<u>Grant- In- Aid for</u>				
i) Equipment	-		22,00,000	
ii) Manpower	10,62,880		10,14,000	
iii) Consumable	7,92,544		12,00,000	
iv) Travel	-		25,000	
v) Contingencies	30,505		50,000	
<u>Interest Earned</u>	21,732		78,100	
TOTAL		49,14,499		45,67,100

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	19,32,827		93,232	
ii) Manpower	5,24,818		5,72,880	
iii) Consumable	4,79,613		8,70,644	
iv) Travel	-		-	
v) Contingencies	34,528		23,506	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	17,68,772		9,00,070	
Equipment	1,73,941		21,06,768	
TOTAL		49,14,499		45,67,100

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DBT PROJECT

Understanding hormonal regulation of root growth plasticity to increase plant productivity under low nitrogen availability in tomato (*Solanum lycopersicum*)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	13,08,852			
Equipment	10,00,000			
Grant- In- Aid for				
i) Equipment	-		10,00,000	
ii) Manpower	-		3,90,000	
iii) Consumable/ Contingency / Travel	-		10,00,000	
iv) Cash Award	-		1,00,000	
v) Overhead Charges	-		1,00,000	
Interest Earned	12,761		11,487	
TOTAL		23,21,613		26,01,487

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	9,91,200			
ii) Manpower	3,52,720		22,016	
iii) Consumable/ Contingency / Travel	5,39,559		70,619	
iv) Cash Award	-		1,00,000	
v) Overhead Charges	-		1,00,000	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	4,29,334		13,08,852	
Equipment	8,800		10,00,000	
TOTAL		23,21,613		26,01,487

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Understanding mechanistic detail of growth promotion and stress tolerance in legume crop by fungal endophyte through secretome and metabolomics study

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	4,15,156			
Equipment	-			
<u>Grant- In- Aid for</u>				
i) Equipment	10,00,000		3,90,000	
ii) Manpower	-		3,00,000	
iii) Consumable	-		15,000	
iv) Travel	-		-	
v) Contingencies				
<u>Interest Earned</u>	12,455		2,065	
TOTAL		14,27,611		7,07,065

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-			
ii) Manpower	2,26,417		-	
iii) Consumable	7,970		2,91,909	
iv) Travel	15,776		-	
v) Contingencies	-		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,77,448		4,15,156	
Equipment	10,00,000		-	
TOTAL		14,27,611		7,07,065

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

Understanding PTI and ETI in plant-hemibiotrophic fungal interaction through secretome and interaction proteomics studies

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	7,47,296			
Equipment	3,20,000			
<u>Grant- In- Aid for</u>				
i) Equipment	-		3,20,000	
ii) Manpower	-		6,24,000	
iii) Consumable	6,65,092		7,00,000	
iv) Travel	39,268		50,000	
v) Contingencies	22,749		50,000	
vi) Overhead Charges	-		-	
<u>Interest Earned</u>	17,949		22,634	
TOTAL		18,12,354		17,66,634

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	3,55,333		-	
iii) Consumable	7,39,879		6,15,214	
iv) Travel	48,849		39,268	
v) Contingencies	52,028		44,856	
vi) Overhead Charges	-		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	2,96,265		7,47,296	
Equipment	3,20,000		3,20,000	
TOTAL		18,12,354		17,66,634

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DBT PROJECT

Indo-Swiss Unravelling the interaction of mineral nutrition (N and K) and vitamin B6 metabolism for sustainable agricultural practices

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	29,59,823			
Equipment	31,00,000			
Grant- In- Aid for				
i) Equipment	-		31,00,000	
ii) Manpower	-		9,83,520	
iii) Consumable	-		15,00,000	
iv) Travel	-		3,75,000	
v) Contingencies	-		50,000	
vi) Others	-		50,000	
Interest Earned	1,13,852		1,303	
TOTAL		61,73,675		60,59,823

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	7,39,440		-	
iii) Consumable	13,27,872		-	
iv) Travel	98,499		-	
v) Contingencies	50,199		-	
vi) Others	48,741		-	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	8,08,924		29,59,823	
Equipment	31,00,000		31,00,000	
TOTAL		61,73,675		60,59,823

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
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NEW DELHI

DBT PROJECT

Indo-Swiss Beyond transgenic plants: use of precise genome editing for improving growth under low phosphorus input

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	42,23,806			
Equipment	16,25,000			
<u>Grant- In- Aid for</u>				
i) Equipment	-		16,25,000	
ii) Manpower	-		16,21,920	
iii) Consumable	-		20,00,000	
iv) Travel	-		3,00,000	
v) Contingencies	-		1,00,000	
vi) Others	-		2,00,000	
<u>Interest Earned</u>	57,766		1,886	
TOTAL		59,06,572		58,48,806

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	10,82,931		-	
ii) Manpower	9,77,791		-	
iii) Consumable	15,70,815		-	
iv) Travel	44,009		-	
v) Contingencies	56,993			
vi) Others	1,90,726			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	14,41,238		42,23,806	
Equipment	5,42,069		16,25,000	
TOTAL		59,06,572		58,48,806

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DBT PROJECT

Investigation of chemical war between isoAsp mediated protein damage and repair in seeds towards understanding seed deterioration during aging and seed storage

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	5,00,108			
<u>Grant- In- Aid for</u>				
i) Consumable/Contingencies/ Travel	-		5,00,000	
<u>Interest Earned</u>	1,928		108	
TOTAL		5,02,036		5,00,108

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Consumable/Contingencies/ Travel	4,35,857		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	66,179		5,00,108	
TOTAL		5,02,036		5,00,108

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
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COA

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NEW DELHI

DBT PROJECT

Structural studies of proteins involved in DNA repair and recombination in Plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-			
<u>Grant- In- Aid for</u>				
i) Fellowship	14,22,000			
ii) Reseach/Contingency grant	10,00,000			
iii)Overhead Charges	50,000			
<u>Interest Earned</u>	11,148			
TOTAL		24,83,148		

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	12,80,564			
ii) Reseach/Contingency grant	6,75,156			
iii)Overhead Charges	50,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	4,77,428			
TOTAL		24,83,148		

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)

FINANCE OFFICER

(SANDEEP DATTA)

COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

Nutritional Improvement of Indian Oilseed Mustard using CRISPR-Cas9 Mediated Genome Editing

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
<u>Grant- In- Aid for</u>				
i) Manpower	9,15,000			
ii) Consumable	10,00,000			
iii) Travel	50,000			
iv) Contingencies	50,000			
v) Overhead Charges	1,00,000			
<u>Interest Earned</u>	28,841			
TOTAL		21,43,841		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	6,91,360			
ii) Consumable	1,14,927			
iii) Travel	18,306			
iv) Contingencies	27,537			
v) Overhead Charges	1,00,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	11,91,711			
TOTAL		21,43,841		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
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NEW DELHI

DBT PROJECT

Elucidating the role of small RNA based effectors involved in root colonization of a growth promoting endophytic fungus Piriformospora indica in chickpea(Cicer arietinum)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
<u>Grant- In- Aid for</u>				
i) Manpower	6,00,000			
ii) Consumable	4,99,940			
iii) Travel	50,000			
iv) Contingencies	50,000			
v) Overhead Charges	24,712			
<u>Interest Earned</u>	4,553			
TOTAL		12,29,205		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	5,17,742			
ii) Consumable	4,96,790			
iii) Travel	-			
iv) Contingencies	-			
v) Overhead Charges	24,712			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,89,961			
TOTAL		12,29,205		-

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DBT PROJECT

Imparting sheath blight disease tolerance in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
Equipment				
<u>Grant- In- Aid for</u>				
i)Equipemnt	25,00,000			
ii) Manpower	45,68,904			
iii) Consumable	80,00,000			
iv) Travel	2,00,000			
v) Contingencies	3,00,000			
<u>Interest Earned</u>	2,01,667			
TOTAL		1,57,70,571		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipemnt	80,000			
ii) Manpower	21,66,589			
iii) Consumable	42,06,501			
iv) Travel	43,631			
v) Contingencies	62,572			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	67,91,278			
Equipment	24,20,000			
TOTAL		1,57,70,571		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NEW DELHI

DBT PROJECT

Characterization of Genetic Resources: Germplasm characterization and Trait discovery in Wheat using Genomics Approaches and its intergration for improving climate Resilience, Productivity and Nutritional quality

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
Equipment				
<u>Grant- In- Aid for</u>				
i) Equipment	90,99,000			
ii) Manpower	27,67,680			
iii) Consumable	6,00,000			
iv) Outsourcing	2,00,00,000			
v) Travel	50,000			
vi) Contingencies	50,000			
<u>Interest Earned</u>	2,677			
TOTAL		3,25,69,357		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-			
ii) Manpower	-			
iii) Consumable	-			
iv) Outsourcing	-			
v) Travel				
vi) Contingencies				
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	2,34,70,357			
Equipment	90,99,000			
TOTAL		3,25,69,357		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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DBT PROJECT

Investigating the molecular-genetic basis of multifunctional glucosinolate transporters (GTR1/GTR2) in Brassica crops

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
<u>Grant- In- Aid for</u>				
i) Cash Award	2,00,000			
ii) Research Grant	5,00,000			
<u>Interest Earned</u>	-			
TOTAL		7,00,000		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Cash Award	-			
ii) Research Grant	-			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	7,00,000			
TOTAL		7,00,000		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
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DST PROJECT

R/P entitled Calcum regulated plant defense strategies upon insect pest attack

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	15,16,191		10,20,582	
<u>Grant - In - Aid for</u>				
i) Equipment/Manpower /Consumables/Contingency / Travel	15,25,993		14,21,414	
<u>Interest earned</u>	16,972		28,975	
TOTAL		30,59,156		24,70,971

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment/Manpower /Consumables/Contingency / Travel	9,94,114.00		9,54,779	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	20,65,042		15,16,191	
TOTAL		30,59,156		24,70,971

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

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DST PROJECT

Indo German R/P entitled Calcium regulated plant defense strategies upon Insect pest attack

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	7,81,205		3,90,412	
<u>Grant - In - Aid for</u>				
i) Manpower	-		4,14,258	
ii) Consumable	-		2,39,032	
iii) Travel	-		2,62,895	
iv)Overheads	-		53,110	
<u>Interest earned</u>	21,580		10,624	
TOTAL		8,02,785		13,70,331

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	36,232		3,74,402	
ii) Consumable			1,61,614	
iii) Travel	-		-	
iv)Overheads	-		53,110	
v)Interest paid	25,640			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	7,40,913		7,81,205	
TOTAL		8,02,785		13,70,331

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

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(SANDEEP DATTA)
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DST PROJECT

R/P entitled Molecular and Biochemical Dissection of SWP1 function and its implication in Plant Development

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	69,844		1,05,808	
Equipment	-		-96,201	
<u>Grant - In - Aid for</u>				
i) Equipment				
ii) Manpower/Consumable/Travel/Contengencies	6,92,473		7,20,000	
iii)Overheads	1,07,527		80,000	
<u>Interest Earned</u>	55		372	
TOTAL		8,69,899		8,09,979

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-96,201	
ii) Manpower/Consumable/Travel/Contengencies	7,60,500		7,56,336	
iii)Overheads	1,07,527		80,000	
<u>Refund to Agency</u>				
Recurring	1,872			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		69,844	
Equipment	-		-	
TOTAL		8,69,899		8,09,979

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
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(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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DST PROJECT

R/P entitled Understanding the Functional Significance of Med15, an important Mediator subunit, in Rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	2,55,792		8,139	
Equipment	37,500		37,500	
<u>Grant - In - Aid for</u>				
i) Equipment	-		-	
ii) Manpower/Consumable/Travel/Contingencies	5,72,856		7,72,856	
iii)Overheads	1,27,144		1,27,144	
<u>Interest Earned</u>	2,112		1,826	
TOTAL		9,95,404		9,47,465

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower/Consumable/Travel/Contingencies	7,95,744		5,27,029	
iii)Overheads	1,27,144		1,27,144	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	35,016		2,55,792	
Equipment	37,500		37,500	
TOTAL		9,95,404		9,47,465

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DST PROJECT

R/P entitled Investigating the Role of Phospholipid Remodeling in Low Phosphate Tolerance in Rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	46,340		2,08,465	
Equipment	542		542	
<u>Grant - In - Aid for</u>				
i) Equipment	-		-	
ii) Manpower/Consumable/Travel/Contingencies	4,40,268		3,40,266	
iii)Overheads	59,734		59,734	
<u>Interest Earned</u>	1,406		1,803	
TOTAL		5,48,290		6,10,810

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower/Consumable/Travel/Contingencies	2,63,954		5,04,194	
iii)Overheads	59,734		59,734	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	2,24,060		46,340	
Equipment	542		542	
TOTAL		5,48,290		6,10,810

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
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NEW DELHI

DST PROJECT

R/P entitled Identification of effector proteins from generalist herbivore, Spodoptera littura and its targets in Arabidopsis

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	3,53,501		36,622	
Equipment	4,428		4,428	
Grant - In - Aid for				
i) Equipment	-		-	
ii) Manpower/Consumable/Travel/Contengencies	94,886		9,44,885	
iii)Overheads	1,05,114		1,05,115	
Interest Earned	5,570		453	
TOTAL		5,63,499		10,91,503

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower/Consumable/Travel/Contengencies	3,72,268		6,28,459	
iii)Overheads	1,05,114		1,05,115	
Refund to Agency				
Recurring	81,689			
Equipment	4,428			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		3,53,501	
Equipment	-		4,428	
TOTAL		5,63,499		10,91,503

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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Membership No.084312

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NEW DELHI

DST PROJECT

R/P entitled Comparative proteomics of chickpea plasma membrane and functional characterization of dehydration-responsive candidate genes

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,54,704		2,34,526	
<u>Grant - In - Aid for</u>				
i) Manpower	55,000		1,74,955	
ii) Consumable	4,38,056		3,75,045	
iii) Travel	-		-	
iv)Contingencies	-		50,000	
v)Overheads	6,944		1,00,000	
<u>Interest Earned</u>	2,037		5,950	
TOTAL		6,56,741		9,40,476

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,58,516		2,18,400	
ii) Consumable	3,95,720		4,25,828	
iii) Travel	11,381		-	
iv)Contingencies	-		41,544	
v)Overheads	6,944		1,00,000	
<u>Refund to Agency</u>				
Recurring	84,180			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		1,54,704	
TOTAL		6,56,741		9,40,476

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
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DST PROJECT

R/P entitled Functional elucidation of serine hydroxy methy1 tranferase 6 and 7 during plant resistance against pathogen infection

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	36,695		13,966	
<u>Grant - In - Aid for</u>				
i) Manpower/Consumable/Travel/ Contengencies	5,50,000		9,16,885	
ii)Overheads	-		83,115	
<u>Interest Earned</u>	732		559	
TOTAL		5,87,427		10,14,525

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower/Consumable/Travel/ Contengencies	5,31,808		8,94,715	
ii)Overheads	-		83,115	
<u>Refund to Agency</u>				
Recurring	55,619			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	-		36,695	
TOTAL		5,87,427		10,14,525

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

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NEW DELHI

DST PROJECT

R/P entitled Identification and characterization of novel genes and alleles contributing for resistant strach traits in foxtail millet

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	2,36,225		29,668	
<u>Grant - In - Aid for</u>				
i) Manpower/Consumable/Travel/Contengencies	6,00,000		8,08,916	
ii)Overheads	-		1,91,084	
<u>Interest Earned</u>	2,010		1,187	
TOTAL		8,38,235		10,30,855

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower/Consumable/Travel/Contengencies	7,69,226		6,03,546	
ii)Overheads	-		1,91,084	
<u>Refund to Agency</u>				
Recurring	69,009			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		2,36,225	
TOTAL		8,38,235		10,30,855

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
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DST PROJECT

R/P entitled Investigation of the molecular mechanism of MKK-3-MPK6-MYC2 module in Arabidopsis seedling development

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS					AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR			
<u>OPENING BALANCE</u>						
With Bank in Saving A/c						
Recurring	1,20,348		6,11,521			
Equipment	7,739		7,739			
<u>Grant - In - Aid for</u>						
i) Equipment	-		-			
ii) Manpower/Consumable/Travel/Contengencies	4,43,479		1,63,600			
iii)Overheads	56,521		36,400			
<u>Interest Earned</u>	3,843		4,926			
TOTAL		6,31,930			8,24,186	

PAYMENTS					AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR			
i) Equipment	-		-			
ii) Manpower/Consumable/Travel/Contengencies	3,67,824		6,59,699			
iii)Overheads	56,521		36,400			
<u>Refund to Agency</u>						
Recurring	1,99,846					
Equipment	7,739					
<u>CLOSING BALANCE</u>						
With Bank in Saving A/c						
Recurring	-		1,20,348			
Equipment	-		7,739			
TOTAL		6,31,930			8,24,186	

For V.K.DHINGRA & Co.
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DST PROJECT

R/P entitled Role of SUN1(Sad/1UNC-84) domain protein from Chickpea and its orthologue from Arabidopsis in dehydration Stress

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	35,546		52,843	
<u>Grant - In - Aid for</u>				
i) Manpower	1,81,000		3,60,000	
ii) Consumable	9,000		1,80,000	
iii) Travel	-		-	
iv)Contingencies	-		-	
v)Overheads	60,000		60,000	
<u>Interest Earned</u>	918		1,367	
TOTAL		2,86,464		6,54,210

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,81,000		3,60,000	
ii) Consumable	-		1,94,072	
iii) Travel	6,440		2,000	
iv)Contingencies	-		2,592	
v)Overheads	60,000		60,000	
vi) Interest paid	2,285			
<u>Refund to Agency</u>				
Recurring	36,739			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		35,546	
TOTAL		2,86,464		6,54,210

For V.K.DHINGRA & Co.
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DST PROJECT

R/P entitled Comprehensive characterization of PIF-family of transcription factors for abiotic stress signaling in crop plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	13,175		21,593	
Equipment	4,025		4,025	
<u>Grant - In - Aid for</u>				
i) Equipment	-		-	
ii) Manpower/Consumable/Travel/Contengencies	7,93,636		11,43,635	
iii)Overheads	1,06,364		1,06,365	
<u>Interest Earned</u>	205		662	
TOTAL		9,17,405		12,76,280

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower/Consumable/Travel/Contengencies	8,01,441		11,52,715	
iii)Overheads	1,06,364		1,06,365	
<u>Refund to Agency</u>				
Recurring	5,575			
Equipment	4,025			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		13,175	
Equipment	-		4,025	
TOTAL		9,17,405		12,76,280

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST PROJECT

Indo-Portugal Joint project Alternative oxidase-a tool to increase bio-mass productivity under temperature and flooding stress

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	81,261		3,61,594	
<u>Grant- In- Aid for</u>				
i) Travel	-		-	
ii) Contingencies	-		-	
<u>Interest earned</u>	1,294		3,125	
TOTAL		82,555		3,64,719

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Travel	35,000		2,69,150	
ii) Contingencies	-		8,729	
iii) Interest paid	3,125		5,579	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	44,430		81,261	
TOTAL		82,555		3,64,719

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NEW DELHI

DST PROJECT

Indo-South Africa R/P entitled Elucidating stress-responsive pathways by comparative proteome mining in the legumes and cereals

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	3,88,081		13,37,322	
<u>Grant- In- Aid for</u>				
i) Manpower	3,28,103		3,64,000	
ii) Consumables	7,11,142		85,339	
iii) Travel	3,76,188		2,02,784	
iv) Contingencies	52,868		-	
<u>Interest earned</u>	1,354		2,182	
TOTAL		18,57,736		19,91,627

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	3,58,736		5,46,503	
ii) Consumables	7,98,617		3,94,112	
iii) Travel	-		5,78,972	
iv) Contingencies	26,418		48,714	
v) Interest paid	2,182		35,245	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	6,71,783		3,88,081	
TOTAL		18,57,736		19,91,627

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

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NEW DELHI

DST PROJECTFunctional characterization of cell wall related genes in lignocellulosic biofuel crop model *Setaria viridis* by VIGS

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	54,123		8,55,682	
<u>Grant- In- Aid for</u>				
i) Manpower	6,60,000		-	
ii) Consumables	2,19,000		-	
iii) Travel	11,000		-	
iv) Contingencies	10,000		-	
v) Overhead charges	1,00,000		-	
<u>Interest earned</u>	224		2,082	
TOTAL		10,54,347		8,57,764

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	6,60,000		5,50,000	
ii) Consumables	2,06,500		2,53,641	
iii) Travel	35,395		-	
iv) Contingencies	14,481		-	
v) Overhead charges	1,00,000		-	
vi) Interest paid	7,764			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	30,207		54,123	
TOTAL		10,54,347		8,57,764

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

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DST PROJECT

R/P entitled Investigating the roles of heterotrimeric G-protein components (G α and RGS) towards governing agronomical traits and abiotic stress tolerance in Indian oilseed mustard

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	2,64,448		10,05,600	
Equipment	2,000		3,00,000	
Grant- In- Aid for				
i) Equipment	-		-	
ii) Manpower	4,05,600		-	
iii) Consumables	4,05,960		-	
iv)Travel	-		-	
v) Contingencies	-		-	
vi)Overhead charges	88,440		-	
Interest Earned	2,515		10,248	
TOTAL		11,68,963		13,15,848

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		2,98,000	
ii) Manpower	2,91,200		2,40,283	
iii) Consumables	43,082		4,67,580	
iv)Travel	-		-	
v) Contingencies	158		43,537	
vi)Overhead charges	88,440		-	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	7,44,083		2,64,448	
Equipment	2,000		2,000	
TOTAL		11,68,963		13,15,848

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
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DST PROJECT

**R/P entitled Biological Invasion: Linking Phytochemical Dynamics of India's Most Aggressive plant
Invader to Genomic Adaptations**

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	1,60,088		11,86,800	
<u>Grant- In- Aid for</u>				
i) Manpower	4,36,800		-	
ii) Consumables	4,63,200		-	
iii) Contingencies	-		-	
iv) Overhead charges	1,00,000		-	
<u>Interest Earned</u>	1,014		6,157	
TOTAL		11,61,102		11,92,957

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	2,69,232		3,08,523	
ii) Consumables	4,14,000		6,27,254	
iii) Travel	-		30,392	
iv) Contingencies	5,418		66,700	
v) Overhead charges	1,00,000		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	3,72,452		1,60,088	
TOTAL		11,61,102		11,92,957

For V.K.DHINGRA & Co.
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Firm Registration No.: 000250N

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DST PROJECT

Indo-German joint project Alternative oxidase as a tool to increase nitrogen use efficiency and growth under nitrogen limitation

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	1,25,865			
<u>Grant- In- Aid for</u>				
i)Travel	-		2,59,000	
ii) Contingencies	-		-	
<u>Interest Earned</u>	3,605		3,666	
TOTAL		1,29,470		2,62,666

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Travel	2,032		1,36,801	
ii) Contingencies	-		-	
iii)Interest Paid	3,666			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	1,23,772		1,25,865	
TOTAL		1,29,470		2,62,666

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DST PROJECT

Comparative analysis of the epigenetic landscape to heat stress adaptation in two contrasting tomato cultivars

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	40,258			
<u>Grant- In- Aid for</u>				
i) Manpower	5,25,368		3,74,400	
ii) Consumable/Contingency/Travel	5,71,037		5,06,537	
iii) Overhead Charges	1,03,595		69,063	
<u>Interest Earned</u>	74		918	
TOTAL		12,40,332		9,50,918

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	4,51,192		3,38,168	
ii) Consumable/Contingency/Travel	5,68,162		5,03,429	
iii) Overhead Charges	1,03,595		69,063	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	1,17,383		40,258	
TOTAL		12,40,332		9,50,918

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST PROJECT

Targeted exome and transcriptome sequencing of lentil for discovery of genetic polymorphisms and construction of a gene expression atlas

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	9,15,870			
<u>Grant - In - Aid for</u>				
i) Manpower	-		3,90,000	
ii) Consumable/Contingencies/Travel	-		5,13,819	
iii)Overheads	-		91,781	
<u>Interest Earned</u>	12,094		12,051	
TOTAL		9,27,964		10,07,651

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-		-	
ii) Consumable/Contingencies/Travel	5,12,724		-	
iii)Overheads	-		91,781	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	4,15,240		9,15,870	
TOTAL		9,27,964		10,07,651

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DST PROJECT

Understanding the role of nodule specific PIN-LIKES (PILS) protein in peanut root nodule development

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	11,82,288			
Equipment	9,03,929			
<u>Grant - In - Aid for</u>				
i) Equipment	-		9,03,929	
i) Manpower	-		4,61,280	
ii) Consumable/Contingencies/Travel	-		7,09,663	
iii) SSR	-		10,000	
iv)Overheads	-		1,19,128	
<u>Interest Earned</u>	10,954		1,345	
TOTAL		20,97,171		22,05,345

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	5,76,010		-	
i) Manpower	4,39,497		-	
ii) Consumable/Contingencies/Travel	7,01,576		-	
iii) SSR	4,000		-	
iv)Overheads	-		1,19,128	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	48,169		11,82,288	
Equipment	3,27,919		9,03,929	
TOTAL		20,97,171		22,05,345

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NEW DELHI

DST PROJECT

Deciphering Jasmonic Acid biosynthesis pathway and its role in potassium (K) deficiency tolerance in chickpea (Cicer arietinum)"

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	9,88,267			
Equipment	15,00,000			
<u>Grant - In - Aid for</u>				
i) Equipment	-		15,00,000	
i) Manpower	-		3,72,000	
ii) Consumable/Contingencies/Travel	-		5,98,000	
iii) SSR	-		10,000	
iv)Overheads	-		1,20,000	
<u>Interest Earned</u>	4,844		8,267	
TOTAL		24,93,111		26,08,267

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	14,80,860		-	
i) Manpower	3,03,543		-	
ii) Consumable/Contingencies/Travel	5,32,456		-	
iii) SSR	9,952		-	
iv)Overheads	-		1,20,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,47,160		9,88,267	
Equipment	19,140		15,00,000	
TOTAL		24,93,111		26,08,267

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NEW DELHI

DST PROJECT

Physiological and molecular characterization of root developmental plasticity under low nitrogen availability

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	13,13,501			
Equipment	11,28,408			
<u>Grant - In - Aid for</u>				
i) Equipment	-		11,28,408	
i) Manpower	-		4,61,280	
ii) Consumable/Contingencies/Travel	-		8,39,598	
iii) SSR	-		10,000	
iv)Overheads	-		1,22,714	
<u>Interest Earned</u>	17,995		2,623	
TOTAL		24,59,904		25,64,623

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	10,52,037		-	
i) Manpower	3,35,379			
ii) Consumable/Contingencies/Travel	4,44,674		-	
iii) SSR	10,000		-	
iv)Overheads	-		1,22,714	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	5,41,443		13,13,501	
Equipment	76,371		11,28,408	
TOTAL		24,59,904		25,64,623

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DST PROJECT

J.C.Bose Fellowship- Dr.Manoj Prasad

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring	9,65,668			
<u>Grant - In - Aid for</u>				
i) Fellowship	3,00,000		2,40,870	
ii) Consumable/ Travel/Contingencies /Equipment	6,00,000		12,04,353	
iii)Overheads	1,00,000		80,290	
<u>Interest Earned</u>	7,189		15,831	
TOTAL		19,72,857		15,41,344

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	3,00,000		75,000	
ii) Consumable/ Travel/Contingencies /Equipment	13,26,019		4,20,386	
iii)Overheads	1,00,000		80,290	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	2,46,838		9,65,668	
TOTAL		19,72,857		15,41,344

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

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COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIOTRA)
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NEW DELHI

DST(SERB NPDF) PROJECT

R/P entitled Integrated analysis of metabolomics and transcriptomic to elucidate the flavonoid biosynthesis pathway in hadjod (Cissus quadrangularis L.)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	3,814		43,989	
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,60,000	
ii) Research/Contingency grant	-		2,00,000	
iii) Overhead Charges	-		50,000	
<u>Interest Earned</u>	-		147	
TOTAL		3,814		9,54,136

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	3,667		6,60,000	
ii) Research/Contingency grant	-		2,40,322	
iii) Overhead Charges	-		50,000	
<u>Refund to Agency</u>				
Recurring	147			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		3,814	
TOTAL		3,814		9,54,136

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
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NEW DELHI

DST(SERB NPDF) PROJECT

Identification of effector genes during biotrophic and necrotrophic phases of Bipolaris sorokiniana and wheat (triticum aestivum) interaction

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	5,077		32,084	
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,60,000	
ii) Research/Contingency grant	-		2,00,000	
iii) Overhead Charges	-		50,000	
<u>Interest Earned</u>	-		195	
TOTAL		5,077		9,42,279

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	3,667		6,60,000	
ii) Research/Contingency grant	-		2,27,202	
iii) Overhead Charges	-		50,000	
<u>Refund to Agency</u>				
Recurring	1,410			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		5,077	
TOTAL		5,077		9,42,279

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
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NEW DELHI

DST(SERB NPDF) PROJECT

**R/P entitled Proteomic characterization of tuber development and nutrient acquisition in sweetpotato
(Ipomoea batatas (L.) Lam)**

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	2,55,299		1,13,435	
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,60,000	
ii) Research/Contingency grant	-		2,00,000	
iii) Overhead Charges	-		50,000	
<u>Interest earned</u>	2		137	
TOTAL		2,55,301		10,23,572

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,10,000		6,60,000	
ii) Research/Contingency grant	1,45,076		58,273	
iii) Overhead Charges	-		50,000	
<u>Refund to Agency</u>				
Recurring	225			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		2,55,299	
TOTAL		2,55,301		10,23,572

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIOTRA)
DIRECTOR PARTNER

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NEW DELHI

DST(SERB NPDF) PROJECT

R/P entitled Analysis of calcium regulated signaling during symbiotic interaction between Arabidopsis thaliana-Pirformospora indica

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	1,80,865		1,82,478	
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,60,000	
ii) Research/Contingency grant	-		2,00,000	
iii) Overhead Charges	-		50,000	
<u>Interest Earned</u>	149		2,580	
TOTAL		1,81,014		10,95,058

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,10,000		6,60,000	
ii) Research/Contingency grant	52,981		2,04,193	
iii) Overhead Charges	-		50,000	
<u>Refund to Agency</u>				
Recurring	18,033			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		1,80,865	
TOTAL		1,81,014		10,95,058

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
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NEW DELHI

DST(SERB NPDF) PROJECT

R/P entitled Global analysis of tomato leaf curl disease induced alternative splicing in tomato

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	2,44,524		1,17,477	
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,60,000	
ii) Research/Contingency grant	-		2,00,000	
iii) Overhead Charges	-		50,000	
<u>Interest Earned</u>	5,686		299	
TOTAL		2,50,210		10,27,776

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	55,000		6,60,000	
ii) Research/Contingency grant	-		73,252	
iii) Overhead Charges	-		50,000	
<u>Refund to Agency</u>				
Recurring	1,95,210			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		2,44,524	
TOTAL		2,50,210		10,27,776

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NEW DELHI

DST(SERB NPDF) PROJECT

R/P entitled Functional characterization of selected OsSWEET gene(s) for role in root development and nutrient acquisition/stress

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	3,945		3,942	
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,60,000	
ii) Research/Contingency grant	-		2,00,000	
iii) Overhead Charges	-		50,000	
<u>Interest Earned</u>	-		152	
TOTAL		3,945		9,14,094

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	3,667		6,60,000	
ii) Research/Contingency grant	-		2,00,149	
iii) Overhead Charges	-		50,000	
<u>Refund to Agency</u>				
Recurring	278			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		3,945	
TOTAL		3,945		9,14,094

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
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(VIPUL GIOTRA)
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DST(SERB NPDF) PROJECT

R/P entitled Comprehensive Organ-Specific Development Proteome analysis of chickpea (*Cicer arietinum*)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	1,21,787		12,121	
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,49,333	
ii) Research/Contingency grant	-		2,00,000	
iii) Overhead Charges	-		50,000	
<u>Interest Earned</u>	4		485	
TOTAL		1,21,791		9,11,939

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	18,333		6,42,666	
ii) Research/Contingency grant	1,02,877		97,486	
iii) Overhead Charges	-		50,000	
<u>Refund to Agency</u>				
Recurring	581			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		1,21,787	
TOTAL		1,21,791		9,11,939

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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DST(SERB NPDF) PROJECT

R/P entitled Possible role of small RNAs in regulating gene expression during various stages of bud dormancy release in apple

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	92,553		98,002	
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,60,000	
ii) Research/Contingency grant	-		2,00,000	
iii) Overhead Charges	-		50,000	
<u>Interest Earned</u>	3		7	
TOTAL		92,556		10,08,009

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	92,258		6,60,000	
ii) Research/Contingency grant	-		2,05,456	
iii) Overhead Charges	-		50,000	
<u>Refund to Agency</u>				
Recurring	298			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		92,553	
TOTAL		92,556		10,08,009

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

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DST(SERB NPDF) PROJECT

R/P entitled Identification and characterization of non-coding RNAs (miRNAs and lncRNAs) governing seed development in chickpea

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	90,105		2,55,000	
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,60,000	
ii) Research/Contingency grant	-		2,00,000	
iii) Overhead Charges	-		50,000	
<u>Interest Earned</u>	293		296	
TOTAL		90,398		11,65,296

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	55,000		6,60,000	
ii) Research/Contingency grant	-		3,65,191	
iii) Overhead Charges	-		50,000	
Refund to Funding Agency	35,398			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		90,105	
TOTAL		90,398		11,65,296

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DST(SERB NPDF) PROJECT

Virus-induced gene silencing-based investigation of the effects of drought stress on tomato plant resistance to the wilt pathogen, *Ralstonia solanacearum*

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	1,12,854			
<u>Grant- In- Aid for</u>				
i) Manpower	6,57,069		6,60,000	
ii) Research/Contingency grant	2,00,000		2,00,000	
iii) Overhead Charges	50,000		1,00,000	
<u>Interest Earned</u>	230		2,931	
TOTAL		10,20,153		9,62,931

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	4,36,333		6,12,333	
ii) Research/Contingency grant	2,03,770		1,37,744	
iii) Overhead Charges	50,000		1,00,000	
Refund to Funding Agency	3,30,050			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		1,12,854	
TOTAL		10,20,153		9,62,931

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST(SERB NPDF) PROJECT

Understanding the role of epigenetic regulation by sirtuins, a class of histone deacetylases (HDACs) in plant development and stress responses

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	5,705			
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,60,000	
ii) Research/Contingency grant	-		2,00,000	
iii) Overhead Charges	-		1,00,000	
<u>Interest Earned</u>	-		166	
TOTAL		5,705		9,60,166

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-		6,54,619	
ii) Research/Contingency grant	-		1,99,842	
iii) Overhead Charges	-		1,00,000	
Refund to Funding Agency	5,705			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		5,705	
TOTAL		5,705		9,60,166

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DST PROJECT

R/P entitled Functional delineation of DROUGHT AND SALT TOLERANCE transcription factor targets for abiotic stress tolerance in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		4,50,000	
<u>Grant - In - Aid for</u>				
i) Equipment	-		-	
ii) Manpower/Consumable/Travel/Contingencies	3,26,452		-	
iii)Overheads	-		-	
<u>Interest Earned</u>	4,897		2,847	
TOTAL		3,31,349		4,52,847

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower/Consumable/Travel/Contingencies	-		3,72,357	
iii)Overheads				
<u>Refund to Agency</u>				
Recurring	3,31,349		80,490	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-		-	
TOTAL		3,31,349		4,52,847

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

PSI & AOAP0 CONFERENCE

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c			-	
<u>Grant - In - Aid for</u>				
i) Grant/Sponsorship			-	
ii) Registration/Other Fee	-		-	
iii) Security Deposit	-		-	
TOTAL		-		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Expenditure			-	
ii) PSI			-	
iii) Refund of Security Deposit			-	
iv) Refund to NIPGR			-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c			-	
TOTAL		-		-

Note: An amount of Rs.46,193/- was deducted as Tax and same has been received from Income Tax Dept.

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST PROJECT

Satellite Symposium

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	-		74,076	
<u>Grant - In - Aid for</u>				
i) Travel/Contingencies from Sponsors	-		2,79,000	
TOTAL		-		3,53,076

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Travel/Contingencies	-		3,53,076	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		-	
TOTAL		-		3,53,076

Note : An amount of Rs.2347.46 was deducted as tax out of which Rs.1347.46 has already been received and Rs.1000.27 is receivable from Income Tax Deptt.

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST PROJECT

INSPIRE Fellow Award- Dr. Deepika Sharma

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	13,90,966			
<u>Grant- In- Aid for</u>				
i) Manpower	-		12,00,000	
ii) Consumable/Contingency/Travel	-		7,00,000	
iii) Overhead Charges	-		-	
<u>Interest Earned</u>	3,040		299	
TOTAL		13,94,006		19,00,299

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	6,40,000		5,09,333	
ii) Consumable/Contingency/ Travel	6,14,626		-	
iii) Overhead Charges	35,000		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	1,04,380		13,90,966	
TOTAL		13,94,006		19,00,299

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
PARTNER

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NEW DELHI

DST PROJECT

INSPIRE Fellowship

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	-			
<u>Grant- In- Aid for</u>				
i) Manpower	9,22,560		-	
ii) Consumable/Contingency/Travel	40,000		-	
iii) Overhead Charges	-		-	
<u>Interest Earned</u>	3,919		-	
TOTAL		9,66,479		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	4,91,800		-	
ii) Consumable/Contingency/ Travel	17,736		-	
iii) Overhead Charges	-		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	4,56,943		-	
TOTAL		9,66,479		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA) (DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
COA DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST(SERB NPDF) PROJECT

Exploring the role of Gamma-amino butyric acid pathway and L-Myo-inositol-1-phosphate synthase for molecular intervention strategies against sheath blight disease of rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	418			
<u>Grant- In- Aid for</u>				
i) Manpower	8,18,388		6,60,000	
ii) Research/Contingency grant	2,00,000		2,00,000	
iii) Overhead Charges	50,000		1,00,000	
<u>Interest Earned</u>	13		12	
TOTAL		10,68,819		9,60,012

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	6,60,000		6,60,000	
ii) Research/Contingency grant	1,66,682		1,99,594	
iii) Overhead Charges	50,000		1,00,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	1,92,137		418	
TOTAL		10,68,819		9,60,012

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST(SERB NPDF) PROJECT

Characterization and database development of heat stress responsive long non-coding RNSs from two contrasting cultivars of tomato

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	3,664			
<u>Grant- In- Aid for</u>				
i) Manpower	8,18,733		6,60,000	
ii) Research/Contingency grant	2,00,000		2,00,000	
iii) Overhead Charges	50,000		1,00,000	
<u>Interest Earned</u>	69		107	
TOTAL		10,72,466		9,60,107

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	8,18,400		6,58,167	
ii) Research/Contingency grant	2,01,699		1,98,276	
iii) Overhead Charges	50,000		1,00,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	2,367		3,664	
TOTAL		10,72,466		9,60,107

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DST(SERB NPDF) PROJECTTo decipher the histone acetylation dynamics during drought stress in *Setaria italica*

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	67,882			
<u>Grant- In- Aid for</u>				
i) Manpower	8,23,463		6,60,000	
ii)Research/Contingency grant	2,00,000		2,00,000	
iii) Overhead Charges	50,000		1,00,000	
<u>Interest Earned</u>	993		1,977	
TOTAL		11,42,338		9,61,977

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	8,18,400		6,30,667	
ii)Research/Contingency grant	1,98,222		1,63,428	
iii)Overhead Charges	50,000		1,00,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	75,716		67,882	
TOTAL		11,42,338		9,61,977

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
PARTNER

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NEW DELHI

DST(SERB NPDF) PROJECT

Dissecting the crucial role and mechanism of PAP3C enzyme, a Purple Acid Phosphatase in phosphate metabolism in transgenic rice plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	9,61,032			
<u>Grant- In- Aid for</u>				
i) Manpower	1,58,400		6,60,000	
ii) Consumable/Contingency/Travel	-		2,00,000	
iii) Overhead Charges	-		1,00,000	
<u>Interest Earned</u>	413		1,032	
TOTAL		11,19,845		9,61,032

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	8,18,400		-	
ii) Consumable/Contingency/Travel	1,87,257		-	
iii) Overhead Charges	1,00,000		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	14,188		9,61,032	
TOTAL		11,19,845		9,61,032

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NEW DELHI

DST(SERB NPDF) PROJECT

mQTL-seq approach for identification of responsible genomic regions for spot blotch resistance in bread wheat and development of markers for molecular breeding

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	9,60,206			
<u>Grant- In- Aid for</u>				
i) Manpower	-		6,60,000	
ii) Consumable/Contingency/Travel	-		2,00,000	
iii) Overhead Charges	-		1,00,000	
<u>Interest Earned</u>	834		206	
TOTAL		9,61,040		9,60,206

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	6,32,500		-	
ii) Consumable/Contingency/Travel	1,99,920		-	
iii) Overhead Charges	1,00,000		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	28,620		9,60,206	
TOTAL		9,61,040		9,60,206

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DST(SERB NPDF) PROJECT

Financial Sanction under Teacher Associateship for Research Excellence (TARE)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	3,35,720			
<u>Grant- In- Aid for</u>				
i) Manpower	-		60,000	
ii) Consumable/Contingency/Travel	-		2,50,000	
iii) Overhead Charges	-		25,000	
<u>Interest Earned</u>	2,479		720	
TOTAL		3,38,199		3,35,720

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-		-	
ii) Consumable/Contingency/Travel	2,37,972		-	
iii) Overhead Charges	15,100		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	85,127		3,35,720	
TOTAL		3,38,199		3,35,720

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DST PROJECT

Transcriptional repressors as friends or foes: Utilization to increase seed size in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
<u>Grant - In - Aid for</u>				
i) Manpower	4,75,870			
ii) Consumable/Contingencies/Travel	7,00,000			
iii) SSR	10,000			
iv)Overheads	1,00,000			
<u>Interest Earned</u>	27,061			
TOTAL		13,12,931		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	53,021			
ii) Consumable/Contingencies/Travel	2,12,085			
iii) SSR	-			
iv)Overheads	1,00,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	9,47,825			
TOTAL		13,12,931		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIOTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DST PROJECT

Genome-wide identification and characterization of fusion events in different plant species

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
Equipment				
<u>Grant - In - Aid for</u>				
i) Equipment	7,00,000			
ii) Manpower	4,61,280			
iii) Consumable/Contingencies/Travel	3,20,220			
iv) SSR	20,000			
v)Overheads	81,500			
<u>Interest Earned</u>	9,744			
TOTAL		15,92,744		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	4,40,000			
ii) Manpower	1,43,840			
iii) Consumable/Contingencies/Travel	56,532			
iv) SSR	-			
v)Overheads	81,500			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	6,10,872			
Equipment	2,60,000			
TOTAL		15,92,744		-

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DST PROJECT

Genome-wide identification and characterization of transfer RNA derived fragments(tRFs) in chickpea

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
Equipment				
<u>Grant - In - Aid for</u>				
i) Equipment	9,56,400			
ii) Manpower	3,07,000			
iii) Consumable/Contingencies/Travel	2,10,100			
iv) SSR	10,000			
v)Overheads	50,000			
<u>Interest Earned</u>	4,390			
TOTAL		15,37,890		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	9,54,485			
ii) Manpower	60,973			
iii) Consumable/Contingencies/Travel	27,507			
iv) SSR	-			
v)Overheads	50,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	4,43,010			
Equipment	1,915			
TOTAL		15,37,890		-

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DST PROJECT

Molecular characterization of flavonol biosynthesis in banana: Towards development of flavonol enriched banana

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
Equipment				
<u>Grant - In - Aid for</u>				
i) Equipment	10,28,951			
ii) Consumable/Contingencies/Travel	4,31,077			
iii) SSR	20,000			
iv)Overheads	73,972			
<u>Interest Earned</u>	8,411			
TOTAL		15,62,411		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	3,59,562			
ii) Consumable/Contingencies/Travel	3,49,148			
iii) SSR	-			
iv)Overheads	73,972			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	1,10,340			
Equipment	6,69,389			
TOTAL		15,62,411		-

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER
Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Development of integrated multi-omics database for understanding combined stress tolerance in plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
Equipment				
<u>Grant - In - Aid for</u>				
i) Equipment	3,00,000			
ii) Manpower	5,20,000			
iii) Consumable/Contingencies/Travel	3,00,900			
iv) SSR	20,000			
v) Overheads	74,000			
<u>Interest Earned</u>	3,753			
TOTAL		12,18,653		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	3,00,000			
ii) Manpower	-			
iii) Consumable/Contingencies/Travel	1,96,276			
iv) SSR	-			
v) Overheads	74,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	6,48,377			
Equipment	-			
TOTAL		12,18,653		-

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST PROJECT

J.C.Bose Fellowship- Dr.Subhra Chakraborty

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
<u>Grant - In - Aid for</u>				
i) Fellowship	3,00,000			
ii) Consumable/ Travel/Contingencies /Equipment	15,00,000			
iii)Overheads	1,00,000			
<u>Interest Earned</u>	7,063			
TOTAL		19,07,063		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	25,000			
ii) Consumable/ Travel/Contingencies /Equipment				
iii)Overheads	1,00,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	17,82,063			
TOTAL		19,07,063		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIOTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

SERB PROJECT

Deciphering role(s) of post-translational modifications and chromatin regulation of immunity in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
<u>Grant - In - Aid for</u>				
i) Manpower	8,03,520			
ii) Consumable/Contingencies/Travel	15,58,931			
iii) SSR	10,000			
iv) Overheads	1,83,549			
<u>Interest Earned</u>	7,686			
TOTAL		25,63,686		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower				
ii) Consumable/Contingencies/Travel				
iii) SSR				
iv) Overheads	1,83,549			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	23,80,137			
TOTAL		25,63,686		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

SERB PROJECT

The role of phytooglobin nitric oxide cycle in oxygen sensing and plasticity of mitochondrial response to low oxygen stress in plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
Equipment				
<u>Grant - In - Aid for</u>				
i) Equipment	3,19,998			
ii) Manpower	5,20,800			
iii) Consumable/Contingencies/Travel	7,00,000			
iv) SSR	20,000			
v) Overheads	1,06,730			
<u>Interest Earned</u>	4,081			
TOTAL		16,71,609		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment				
ii) Manpower	29,400			
iii) Consumable/Contingencies/Travel	45,613			
iv) SSR				
v) Overheads	1,06,730			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	11,69,868			
Equipment	3,19,998			
TOTAL		16,71,609		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

SANDEEP DATTA
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DST PROJECT

Financial Approval of the SwarnaJayanti Fellowship to Dr. Jitender Giri

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c Recurring				
<u>Grant - In - Aid for</u>				
i) Fellowship	3,00,000			
ii) Consumable/ Travel/Contingencies /Equipment				
<u>Interest Earned</u>	750			
TOTAL		3,00,750		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship				
ii) Consumable/ Travel/Contingencies /Equipment				
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c Recurring	3,00,750			
TOTAL		3,00,750		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIOTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Unlinking phosphate deficiency responses from their adverse effects on growth in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring				
Equipment				
<u>Grant - In - Aid for</u>				
i) Equipment	15,00,000			
ii) Manpower	9,27,120			
iii) Consumable/Contingencies/Travel	16,00,000			
iv) Overheads	2,82,712			
<u>Interest Earned</u>	7,613			
TOTAL		43,17,445		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment				
ii) Manpower				
iii) Consumable/Contingencies/Travel				
iv) Overheads	2,82,712			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	25,34,733			
Equipment	15,00,000			
TOTAL		43,17,445		-

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST(SERB NPDF) PROJECT

The role of non-symbiotic haemoglobin, nitrate nutrition to increase energy efficiency under hypoxia in rice and wheat

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
<u>Grant- In- Aid for</u>				
i) Manpower	8,18,840			
ii) Consumable/Contingency/Travel	2,00,000			
iii) Overhead Charges	1,00,000			
<u>Interest Earned</u>	3,531			
TOTAL		11,22,371		

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	8,11,580			
ii) Consumable/Contingency/Travel	78,293			
iii) Overhead Charges	1,00,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	1,32,498			
TOTAL		11,22,371		

For V.K.DHINGRA & Co.
 CHARTERED ACCOUNTANT
 Firm Registration No.: 000250N

(RAKESH MOHAN)
 FINANCE OFFICER

(SANDEEP DATTA)
 COA

(DR. SUBHRA CHAKRABORTY)
 DIRECTOR

(VIPUL GIROTRA)
 PARTNER
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST(SERB NPDF) PROJECT

Deciphering the role of auxin-brassinosteroid crosstalk in the leaf development cascades under adverse environmental conditions

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
<u>Grant- In- Aid for</u>				
i) Manpower	8,18,400			
ii) Consumable/Contingency/Travel	2,00,000			
iii) Overhead Charges	1,00,000			
<u>Interest Earned</u>	6,660			
TOTAL		11,25,060		

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	5,46,333			
ii) Consumable/Contingency/Travel	2,09,110			
iii) Overhead Charges	1,00,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	2,69,617			
TOTAL		11,25,060		

For V.K.DHINGRA & Co.
 CHARTERED ACCOUNTANT
 Firm Registration No.: 000250N

(RAKESH MOHAN)
 FINANCE OFFICER

(SANDEEP DATTA)
 COA

(DR. SUBHRA CHAKRABORTY)
 DIRECTOR

(VIPUL GIROTRA)
 PARTNER
 Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DST(SERB NPDF) PROJECT

Exploring the role of post-translational modification of jasmonate signaling genes in low phosphate tolerance

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
<u>Grant- In- Aid for</u>				
i) Manpower	8,18,400			
ii) Consumable/Contingency/Travel	2,00,000			
iii) Overhead Charges	1,00,000			
<u>Interest Earned</u>	4,677			
TOTAL		11,23,077		

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,91,400			
ii) Consumable/Contingency/Travel	-			
iii) Overhead Charges	1,00,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	8,31,677			
TOTAL		11,23,077		

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
 Firm Registration No.: 000250N

(RAKESH MOHAN)
 FINANCE OFFICER

(SANDEEP DATTA)
 COA

(DR. SUBHRA CHAKRABORTY)
 DIRECTOR

(VIPUL GIROTRA)
 PARTNER
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST(SERB NPDF) PROJECT

Development of CRISPR/Cas9 based OsMED15 epiallele for increasing rice grain length

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
<u>Grant- In- Aid for</u>				
i) Manpower	8,18,400			
ii) Consumable/Contingency/Travel	2,00,000			
iii) Overhead Charges	1,00,000			
<u>Interest Earned</u>	2,808			
TOTAL		11,21,208		

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	82,310			
ii) Consumable/Contingency/Travel	-			
iii) Overhead Charges	1,00,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	9,38,898			
TOTAL		11,21,208		

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

DST(SERB NPDF) PROJECT

Understanding the molecular crosstalk between early Spodoptera perception and Jasmonate biosynthesis

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
<u>Grant- In- Aid for</u>				
i) Manpower	8,18,400			
ii) Consumable/Contingency/Travel	2,00,000			
iii) Overhead Charges	1,00,000			
<u>Interest Earned</u>	3,517			
TOTAL		11,21,917		

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	75,256			
ii) Consumable/Contingency/Travel	-			
iii) Overhead Charges	1,00,000			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	9,46,661			
TOTAL		11,21,917		

For V.K.DHINGRA & Co.
 CHARTERED ACCOUNTANT
 Firm Registration No.: 000250N

(RAKESH MOHAN)
 FINANCE OFFICER

(SANDEEP DATTA)
 COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NEW DELHI

DST(SERB NPDF) PROJECT

Integrating omics approaches to understand the molecular mechanism underlying plants response to tomato leaf curl disease- Woman Excellence Award

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u> With Bank in Saving A/c				
<u>Grant- In- Aid for</u>				
i) Consumable/Contingency/Travel	5,00,000			
ii) Overhead Charges	1,00,000			
<u>Interest Earned</u>				
TOTAL		6,00,000		

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Consumable/Contingency/Travel				
ii) Overhead Charges				
<u>CLOSING BALANCE</u> With Bank in Saving A/c	6,00,000			
TOTAL		6,00,000		

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
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NEW DELHI

DST SERB PROJECT

SERB Assistance Seminar/Symposia Scheme for "First National Conference on Neglected and Underutilized Crop Species for Food, Nutrition and Environment"

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	50,000		-	
<u>Grant - In - Aid for</u>				
i) Registration Fee	1,75,000		50,000	
ii) Receipt from other Funding Agencies	7,14,583		-	
	-		-	
TOTAL		9,39,583		50,000

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Domestic Travel/ Accomodation	1,84,815		-	
ii) Pre-Conference Printing	1,21,520		-	
iii) Contingencies (Stationary items/ Working Tea Lunch, Audio-Visual etc.	5,79,510		-	
Other Expenses (Decoration, Mementoes etc.)	53,738		-	
Refund to Funding Agency	-		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-		50,000	
TOTAL		9,39,583		50,000

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIOTRA)
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NEW DELHI

DST SERB PROJECT

Regional Young Investigators Meeting (RYIM)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS					AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR			
<u>OPENING BALANCE</u>						
With Bank in Saving A/c						
<u>Grant - In - Aid for</u>						
i) Funds received from Sponsorship	1,58,000					
ii) Funds received from Govt. Agencies	2,30,000					
iii) Funds received from ISRFG, NIPGR	4,50,000					
iv) Funds received from Registration Fee	2,01,000					
TOTAL		10,39,000				

PAYMENTS					AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR			
i) Boarding and Lodging Expenses	3,82,918			-		
ii) Transportation and TA/DA Expenses	28,818					
iii) Organising expenses	4,39,312					
<u>Refund to Funding Agency</u>	54,968					
Funds trf to ISRFG, NIPGR	1,32,984					
TOTAL		10,39,000				-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
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NEW DELHI

DST SERB PROJECT

Annual Progress Review Meeting of PAC on Plant Sciences

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
<u>Grant - In - Aid for</u>				
i) TA/DA and Honorarium for PAC Members	2,75,000			
ii) The Meeting Expenditure	2,75,000			
TOTAL		5,50,000		

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) TA/DA and Honorarium for PAC Members	1,93,372		-	
ii) The Meeting Expenditure	1,53,439			
<u>Refund to Funding Agency</u>	2,03,189			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	-			
TOTAL		5,50,000		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

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NEW DELHI

DST SERB PROJECT

Ramanujan Review meeting of Sciences fellows under Ramanujan Fellowship Scheme

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u> With Bank in Saving A/c				
<u>Grant - In - Aid for</u>				
i) TA/DA to non-official members of Expert Committee	2,16,000			
ii) Honorarium to the members of the Expert Committee	84,000			
iii) Accomodation for 21 Experts and 40 Ramanujan fellows	3,00,000			
TOTAL		6,00,000		

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) TA/DA to non-official members of Expert Committee	1,16,668		-	
ii) Honorarium to the members of the Expert Committee	64,000			
iii) Accomodation for 21 Experts and 40 Ramanujan fellows	1,33,331			
<u>CLOSING BALANCE</u> With Bank in Saving A/c	2,86,001			
TOTAL		6,00,000		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

DST SERB PROJECT

1st meeting of the PAC on 'Interdisciplinary Biological Sciences'

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
<u>Grant - In - Aid for</u>				
i) TA/DA & Honorarium to Expert Committee members	5,00,000			
ii) Lodging/Boarding, Local transport, Meeting materials, Food, Working & other misc. expenditure	4,00,000			
TOTAL		9,00,000		

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) TA/DA & Honorarium to Expert Committee members	2,65,967		-	
ii) Lodging/Boarding, Local transport, Meeting materials, Food, Working & other misc. expenditure	1,90,650			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	4,43,383			
TOTAL		9,00,000		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIOTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

Funding for the national Frontiers of Science (NatFos) series Brainstorming session by Indian National Young Academy of Science(INYAS)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u> With Bank in Saving A/c				
<u>Grant - In - Aid for</u> i) Resorts Package, Air Travel reimbursement, memento/Certificate/Banner/Registration Kits & misc. contingency	11,70,000			
TOTAL		11,70,000		

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Resorts Package, Air Travel reimbursement, memento/Certificate/Banner/Registration Kits & misc. contingency	11,30,358		-	
<u>CLOSING BALANCE</u> With Bank in Saving A/c	39,642			
TOTAL		11,70,000		-

For V.K.DHINGRA & Co.
 CHARTERED ACCOUNTANT
 Firm Registration No.: 000250N

(RAKESH MOHAN)
 FINANCE OFFICER

(SANDEEP DATTA)
 COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIOTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

INSA Project

R/P entitled Manipulation of citrate biosynthesis and transport for improved low phosphate tolerance in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	23,026		110	
Grant - In - Aid for				
i) Manpower				
ii) Travel	3,81,579		1,99,912	
iii) Contingencies				
iv) Overheads	95,395		49,978	
Interest Earned	691		4	
TOTAL		5,00,691		2,50,004

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower				
ii) Travel	1,51,116		1,77,000	
iii) Contingencies				
iv) Overheads	95,395		49,978	
CLOSING BALANCE				
With Bank in Saving A/c	2,54,180		23,026	
TOTAL		5,00,691		2,50,004

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIOTRA)
DIRECTOR PARTNER

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

INSA Project

INSA Elucidation of Metabolic Channelling at the Entry point into the phenylpropanoid pathway in Musa species : functional characterizatrion of phenyl alanine ammonia lyase gene family

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	1,55,228		-	
<u>Grant - In - Aid for</u>				
i) Manpower				
ii) Travel	2,79,850		4,00,000	
iii) Contingencies				
iv) Overheads	64,922		1,00,000	
Interest Earned	4,462		4,032	
TOTAL		5,04,462		5,04,032

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower				
ii) Travel	2,07,019		2,48,804	
iii) Contingencies				
iv) Overheads	64,922		1,00,000	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	2,32,521		1,55,228	
TOTAL		5,04,462		5,04,032

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

ICAR Project

ICAR-NASF Identification of host factors responsible for infection and development of nano particle based dsRNA delivery system for imparting resistance to begomoviruses

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	1,68,329			
Grant - In - Aid for				
i) Non-recurring	-		12,00,000	
ii) Manpower	5,65,067		4,16,000	
iii) Consumables	2,98,643		4,00,000	
iv) Travel	75,262		40,000	
v) Contingencies	2,00,000		-	
vi) Overheads	61,399		42,800	
Interest Earned	70		3,301	
TOTAL		13,68,770		21,02,101

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Non-recurring	-		12,00,000	
ii) Manpower	4,26,759		3,57,067	
iii) Consumables	3,81,352		2,98,643	
iv) Travel	67,032		35,262	
v) Contingencies	1,89,568		-	
vi) Overheads	61,399		42,800	
CLOSING BALANCE				
With Bank in Saving A/c	2,42,660		1,68,329	
TOTAL		13,68,770		21,02,101

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

ICAR Project

ICAR-NASF Development of sustainable management tools for the invasive pest, Fall Armyworm
 Spodoptera frugiperda (J.E. Smith) in maize

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	-			
Grant - In - Aid for				
i) Manpower	1,15,320			
ii) Consumables	10,00,000			
iii) Travel	5,000			
iv) Contingencies	-			
v) Overheads	56,016			
Interest Earned	1,240			
TOTAL		11,77,576		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	99,200			
ii) Consumables	7,84,799			
iii) Travel	-			
iv) Contingencies	-			
v) Overheads	56,016			
CLOSING BALANCE				
With Bank in Saving A/c	2,37,561			
TOTAL		11,77,576		-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
 FINANCE OFFICER

(SANDEEP DATTA)
 COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIOTRA)
 DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

FELLOWSHIP GRANT CSIR

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	3,91,068		6,24,978	
Amt. received from CSIR for Research Fellowships & Associateships	2,00,622		38,41,513	
TOTAL		5,91,690		44,66,491

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Amount paid for Research Fellowships & Associateships	1,90,741		23,14,039	
<u>Refund to Agency</u>	14,376		17,61,384	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	3,86,573		3,91,068	
TOTAL		5,91,690		44,66,491

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

FELLOWSHIP GRANT UGC

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	35,411		87,790	
Amt.received from UGC for Research Fellowships & Associateships	-		4,49,721	
TOTAL		35,411		5,37,511

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Amount paid for Research Fellowships & Associateships	-		5,02,100	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	35,411		35,411	
TOTAL		35,411		5,37,511

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

FELLOWSHIP GRANT DBT

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	37,19,979		29,41,095	
Amt. received from DBT for Research Fellowships & Associateships	1,50,64,310		1,39,12,115	
TOTAL		1,87,84,289		1,68,53,210

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Amount paid for Research Fellowships & Associateships	1,66,69,037		1,31,33,231	
Refund to Funding Agency	4,63,065			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	16,52,187		37,19,979	
TOTAL		1,87,84,289		1,68,53,210

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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NEW DELHI

FELLOWSHIP GRANT ICMR

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	32		3,29,581	
Amt.received from ICMR for Research Fellowships & Associateships	-		-	
TOTAL		32		3,29,581

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Amount paid for Research Fellowships & Associateships	-		3,28,649	
Refund to Agency	-		900	
CLOSING BALANCE				
With Bank in Saving A/c	32		32	
TOTAL		32		3,29,581

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER(SANDEEP DATTA)
COA(DR. SUBHRA CHAKRABORTY)
DIRECTOR(VIPUL GIROTRA)
PARTNER

Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

FELLOWSHIP GRANT AIRTF

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c	-		-	
Amt. received from AIRTF for Research Fellowships in r/o of Dr. Reno Tryono	1,65,000		-	
TOTAL		1,65,000		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Amount paid for Research Fellowships & Associateships	1,50,000		-	
<u>Refund to Agency</u>	-		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c	15,000		-	
TOTAL		1,65,000		-

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER
Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

RECEIPT AND PAYMENT ACCOUNT OF NIPGR EMPLOYEES CONTRIBUTORY PROVIDENT FUND ACCOUNT

FOR THE PERIOD 1st APRIL 2019 TO 31st MARCH 2020

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
In Savings Account	12,35,936		19,78,416	
In Fixed Deposit	5,94,85,144		5,55,63,096	
<u>SUBSCRIPTIONS</u>				
(i) Amount of Regular Subscription	59,57,000		55,68,000	
(ii) Refund of advances received from Subscribers	6,00,800		7,66,100	
Amount received from NIPGR Core grant to meet Institute's liability towards Contribution & Deficit of Interest	54,70,499		2,38,522	
<u>INTEREST EARNED</u>				
Savings Account/ Investments	17,18,526		61,92,029	
Other Receipts	-		-	
TOTAL		7,44,67,905		7,03,06,163

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Advances paid to Subscribers	2,00,000		9,60,000	
Part final withdrawal	5,00,000		-	
Full & Final payment of Subscribers	-		86,25,083	
<u>CLOSING BALANCE</u>				
In Savings Account	62,24,583		12,35,936	
In Fixed Deposit	6,75,43,322		5,94,85,144	
TOTAL		7,44,67,905		7,03,06,163

Note : An amount of ₹8,24,289/- is receivable from Income Tax & PNBHFL.

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY) (VIPUL GIROTRA)
DIRECTOR PARTNER

Membership No.084312

**COMMENTS ON AUDITOR'S REPORT ON ACCOUNTS FOR THE
YEAR ENDED MARCH 31, 2020**

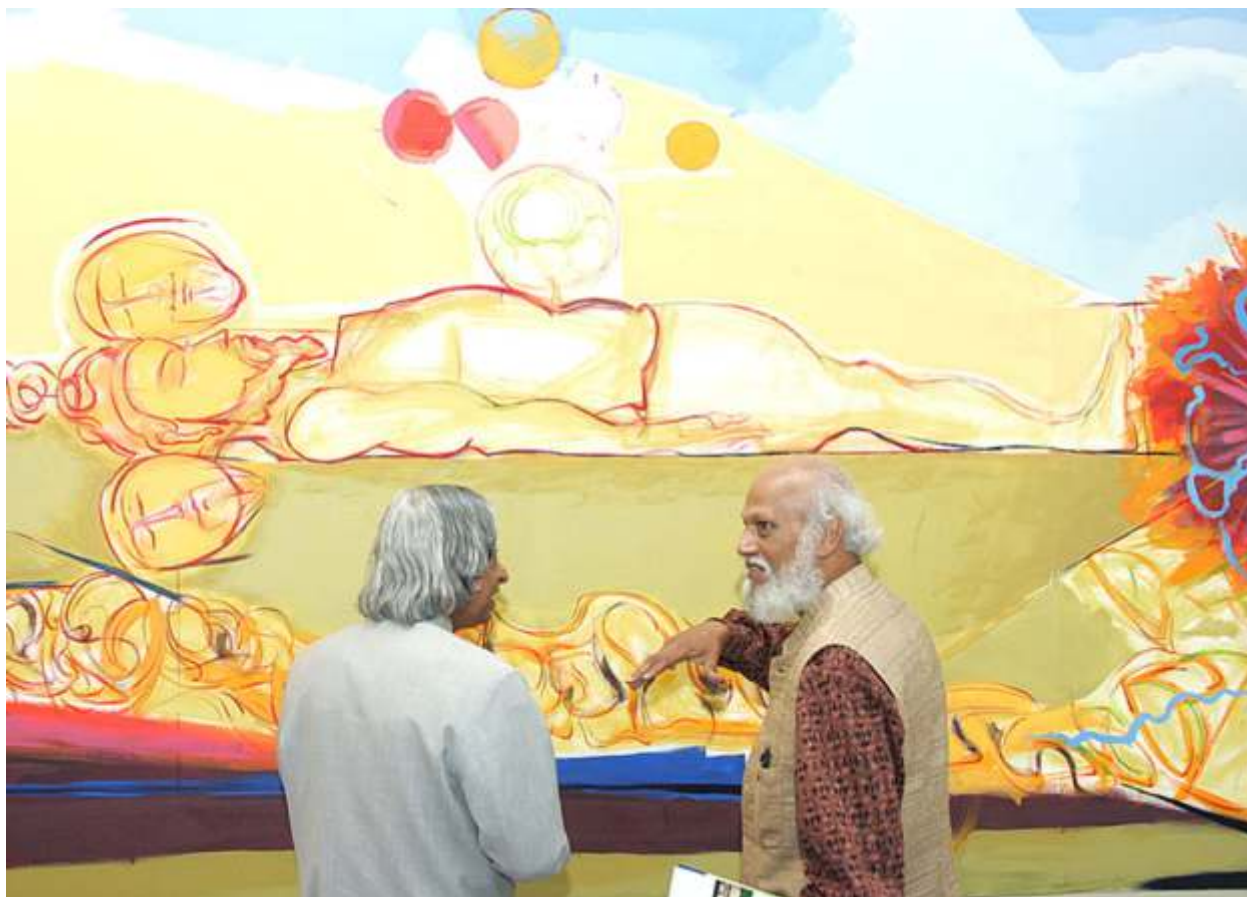
No comment in the Auditor's report has been included. The statements made in the report are informative items. Keeping in view of NIL observation on the Annual Accounts for the Financial Year 2019-20, the comment may be considered as Nil for the purpose or record.

(Rakesh Mohan)
Finance Officer

(Sandeep Datta)
Controller of Administration

(Dr. Subhra Chakraborty)
Director

A page from History



Dr. A.P.J. Abdul Kalam, then President of India interacting with Mr. Jatin Das on the occasion of dedication of NIPGR (then NCPGR) to the Nation on November 28, 2006 at NIPGR campus



National Institute of Plant Genome Research

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